INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603

(800) 451-6027
www.state.in.us/idem

Governor

January 13, 2003

Ms. Gayle Mayo, Vice President Planning and Engineering
Indiana Municipal Power Agency
11610 N. College Avenue
Carmel, Indiana 46032

Re: 095-16149-00051
First Significant Permit Modification to:
Part 70 permit No.: T095-12389-00051

Dear Ms. Mayo:

Indiana Municipal Power Aency was issued a permit on December 7, 2001 for an electrictity generation station. A letter requesting changes to this permit was received on April 19, 2002. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

(a) The addition of a 84 MW natural gas and fuel oil fired, simple cycle gas turbine (identified as T3);

(b) An increase from the 100 tpy source wide emissions limit to the legally-afforded 250 tpy emissions limit to accommodate the addition of the 84 MW turbine; and

(c) An increase in the existing diesel engines' (identified as D7 and D8) fuel usage to accommodate the addition of the 84 MW turbine.

Pursuant to the provisions of 326 IAC 2-7-12(b), a significant permit modification to permit T095-12389-00051 is hereby approved as described in the attached Technical Support Document.

All other conditions of the permit shall remain unchanged and in effect. Please find attached a copy of the revised permit.

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY
and the
Anderson Office of Air Management

Indiana Municipal Power Agency
Anderson Gas Turbine Generating Facility
6035 Park Road
Anderson, Indiana 46011

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T095-12389-00051	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: December 7, 2001 Expiration Date: December 7, 2006

First Significant Permit Modification: SPM: 095-16149-00051	Pages affected: 3, 4, 28, 29, 30, 31, 32, 33, 35, 42
Issued by: Original signed by Paul Dubenetzky Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date:January 13, 2003 Expiration Date:January 13, 2008

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Anderson Office of Air Management (AOAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a gas turbine electric generating plant.

Responsible Official:	Ms.Gayle Mayo, Vice President Planning and Eng.
Source Address:	6035 Park Road, Anderson, Indiana 46011
Mailing Address:	11610 North College Avenue, Carmel, Indiana 46032
Contact Person:	Mr. Jack Alvey
Phone Number:	(317) 575-9955
SIC Code:	4911
County Location:	Madison
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program pursuant to the Acid Rain Program Minor Source under PSD Rules Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) 38.7 megawatt (net) simple cycle gas turbines using natural gas as the primary fuel with No. 2 fuel oil used as a backup identified as T1 and T2, and using a water injection system as control, with each turbine exhausting to stacks, identified as S/V 3 and S/V 4, respectively.

(b) One (1) 84 megawatt (MW) simple cycle gas turbine, using natural gas as the primary fuel and #2 fuel oil as backup fuel, identified as T3, using water injection for NOx control when fuel oil is used, and exhausting to stack S/V 7. When using natural gas, T3 has a maximum heat input capacity of 858 MMBtu/hr. When using #2 fuel oil, T3 has a maximum heat input capacity of 850 MMBtu/hr.

(c) Two (2) 630 horsepower diesel engines used for turbine start-up, identified as D7 and D8, each exhausting at stacks, identified as S/V 5 and S/V 6, respectively.

(d) Two (2) 300,000 gallon No. 2 fuel oil storage tanks, identified as FT10 and FT11.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1 (21) that have applicable requirements.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22); however, the source has requested to maintain a PSD Minor Source;

(b) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3), which has required this source to obtain a Part 70 permit;

(c) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the AOAM, and the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

The submittal by the Permittee does require the certification by the A responsible official@ as defined by 326 IAC 2-7-1(34).

The Permittee shall furnish to IDEM, OAQ, and the AOAM, within a reasonable time, any information that IDEM, OAQ, and the AOAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance

with this permit. The submittal by the Permittee does require the certification by the A responsible official @ as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, and the AOAM copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of the final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the AOAM, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, and the AOAM, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, and the AOAM, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and the AOAM. IDEM, OAQ, and the AOAM, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the AOAM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the AOAM within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and the AOAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Indiana Department of Environmental Management, Office of Air Quality
Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

Anderson Office of Air Management
Telephone Number: 765-648-6158
Fax Number: 765-648-5924

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile, to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the responsible official as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, and the AOAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, and the AOAM, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued

operating permits are superceded by this permit, except for permits issued pursuant to Title IV of the Clean Air Act (Acid Rain Program) and 326 IAC 21 (Acid Deposition Control).

(c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, and the AOAM, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, or the AOAM, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, or the AOAM, has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality

100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

using the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or the AOAM, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, or the AOAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, and the AOAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, and the AOAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and the AOAM, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the AOAM, on or before the date it is due.

(2) If IDEM, OAQ, and the AOAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, and the AOAM, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, and the AOAM, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, and the AOAM, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act.

(c) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, and the AOAM, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, the AOAM, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, the AOAM, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy any records that must be kept under the conditions of this permit;

(c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

(a) The Permittee shall pay annual fees to IDEM, OAQ, and the AOAM, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, or the AOAM, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing performed to determine compliance with applicable emission limitations contained in the permit, or for any other purpose requiring review and approval by IDEM, OAQ, such as an alternate emission factor determination, shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and the AOAM, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required

by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.11 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ and the AOAM, upon request and shall be subject to review and approval by IDEM, OAQ and the AOAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.

(c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within “normal” parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.

(f) At its discretion, IDEM may excuse the Permittee’s failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter.

Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the AOAM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner and the AOAM within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and the AOAM, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Two (2) 38.7 megawatt (net) simple cycle gas turbines using natural gas as the primary fuel with No. 2 fuel oil used as a backup identified as T1 and T2, and using a water injection system as control, with each turbine exhausting to stacks, identified as S/V 3 and S/V 4, respectively.

(b) One (1) 84 megawatt (MW) simple cycle gas turbine, using natural gas as the primary fuel and #2 fuel oil as backup fuel, identified as T3, using water injection for NOx control and exhausting to stack S/V 7. When using natural gas, T3 has a maximum heat input capacity of 858 MMBtu/hr. When using #2 fuel oil, T3 has a maximum heat input capacity of 850 MMBtu/hr.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Fuel Usage Limitation - Prevention of Significant Deterioration [326 IAC 2-2][40 CFR 52.21]

The total amount of natural gas equivalents consumed by turbines T1, T2, and T3 shall be limited to 8,003 million standard cubic feet of gas (MMSCF) per twelve consecutive month period with compliance determined at the end of each month.

(a) For every one million standard cubic feet of gas (MMSCF) consumed by turbine T3, the natural gas equivalent limit shall be reduced by one million standard cubic feet (MMCF).

(b) For every one million standard cubic feet of gas (MMSCF) consumed by turbine T1, the natural gas equivalent limit shall be reduced by 2.40 million standard cubic feet.

(c) For every one million standard cubic feet of gas (MMSCF) consumed by turbine T2, the natural gas equivalent limit shall be reduced by 2.55 million standard cubic feet.

(d) For every one thousand gallons of fuel oil (kgal) consumed by turbine T3, the natural gas equivalent limit shall be reduced by 0.392 million standard cubic feet.

(e) For every one thousand gallons of fuel oil (kgal) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 0.471 million standard cubic feet.

This limit, in conjunction with the fuel limit on diesel engines D7 and D8 and the potential to emit from one (1) 2.0 MMBtu/hr natural gas-fired heater, has been incorporated to limit the potential to emit nitrogen oxidizes (NO_x) and carbon monoxide (CO) to less than 250 tons per twelve consecutive month period.

Compliance with this limit will render the requirements of 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration) not applicable.

D.1.2 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines).

D.1.3 New Source Performance Standard [326 IAC 12-1][40 CFR Part 60, Subpart GG]

Pursuant to 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), the Permittee shall comply with the following limits:

(1) limit nitrogen oxides emissions, as required by 40 CFR 60.332, to:

$$STD = 0.0075 \frac{(14.4)}{Y} + F ,$$

where STD = allowable NO_x emissions (percent by volume at 15 percent oxygen on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peck load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of 40 CFR 60.332.

(2) Limit sulfur dioxide emissions, as required by 40 CFR 60.333, to 0.015 percent by volume at 15 percent oxygen on a dry basis, or use natural gas fuel with a sulfur content less than or equal to 0.8 percent by weight.

D.1.4 NOx Emissions Limitations

(a) Pursuant to CP-048-1841, issued May 11, 1990, the nitrogen oxide (NO_x) emissions from turbines T1 and T2 shall be limited to 42 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting natural gas and 65 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting fuel oil. [These limits are more stringent than the NSPS standards contained in 326 IAC 12 and 40 CFR 60.332 (a)(1) and (b)].

(b) In order to ensure compliance with 40 CFR 60.332, the nitrogen oxide (NO_x) emissions from turbine T3 shall be limited to 42 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting natural gas and 65 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting fuel oil. [These limits are more stringent than the NSPS standards contained in 326 IAC 12 and 40 CFR 60.332 (a)(1) and (b)].

D.1.5 Sulfur Dioxide [326 IAC 2-7-24] [40 CFR 60.333(b)] [326 IAC 7-1.1]

(a) Pursuant to Construction Permit 048-1841, issued May 11, 1990, the sulfur content of any fuel (natural gas or oil) used in turbines T1 and T2 shall be limited to 0.17% sulfur by weight. Pursuant to 326 IAC 2-7-24, compliance with this limitation shall satisfy the requirements of 40 CFR 60.333(b) and 326 IAC 7-1.1.

(b) In order to ensure compliance with 40 CFR 60.333, the sulfur content of any fuel (natural gas or oil) used in turbine T3 shall be limited to 0.17% sulfur by weight. Pursuant to 326 IAC 2-7-24, compliance with this limitation shall satisfy the requirements of 40 CFR 60.333(b) and 326 IAC 7-1.1.

D.1.6 Opacity

(a) Pursuant to Construction Permit 048-1841, issued May 11, 1990, and in order to ensure compliance with 326 IAC 5-1, visible emissions from combustion turbine stacks S/V 3 and S/V 4 shall be limited to twenty percent (20%) opacity.

(b) In order to ensure compliance with 326 IAC 5-1, visible emissions from combustion turbine stack S/V 7 shall be limited to twenty percent (20%) opacity.

D.1.7 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.8 Testing Requirements [326 IAC 2-7-6(1),(6)][40 CFR Part 60 Subpart GG][40 CFR 75.12]

(a) Within one hundred and eighty (180) days after initial startup of turbine T3, the Permittee shall conduct performance tests for SO_2 on turbine T3, using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.1.3. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) The Permittee shall perform initial performance tests for turbine T3 to measure NO_X emission rates at heat input rate levels corresponding to different load levels and plot the correlation between heat input rate and NO_X emission rate in order to determine the emission rate of the units. This testing shall be performed in accordance with Section 2.1 of Appendix E of 40 CFR 75.

(c) The Permittee shall retest the NO_X emission rate of each turbine prior to the earlier of 3,000 unit operating hours or the 5 year anniversary and renewal of its operating permit under 40 CFR Part 72. This testing shall be performed in accordance with Section 2.1 of Appendix E of 40 CFR 75.

D.1.9 NSPS Compliance Provisions [40 CFR Part 60, Subpart GG]

(a) Pursuant to 40 CFR 60, Subpart GG and the custom monitoring schedule procedures approved by EPA on April 05, 2001, when combusting natural gas, the turbines shall comply with the sulfur dioxide emissions standard by using pipeline natural gas, as defined by 40 CFR 72.2.

(b) No alternate fuel burned in the gas turbines shall contain sulfur in excess of 0.8 percent by weight.

D.1.10 Compliance Requirements (Stationary Gas Turbines) [40 CFR Part 60, Subpart GG]

Pursuant to 40 CFR Part 60, Subpart GG (Stationary Gas Turbines), the Permittee shall monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbines as follows:

(a) Install a continuous monitoring system to monitor the fuel consumption and the ratio of water to fuel being fired in the turbines, as required by 40 CFR 60.334(a).

D.1.11 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR Part 60, Subpart GG]

Compliance shall be determined utilizing the following option when combusting fuel oil:

Pursuant to 40 CFR 60.334, Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in each turbine. Pursuant to 40 CFR 60.334 (b)(2), the custom

monitoring schedule procedures approved by EPA on April 05, 2001 shall be accepted. Monitoring of these values shall be conducted as follows:

(a) The nitrogen and sulfur content values for the #2 fuel oil shall be determined either by sampling on a semi-annual frequency or determined by sampling after each occasion that fuel is transferred to the storage tank from any other source. The latter requirement requires that after each addition of #2 fuel oil to the storage tank, sampling for nitrogen and sulfur content must be performed.

The sulfur and nitrogen content information obtained from this monitoring shall be used to document compliance with the limits stated in Conditions D.1.1, D.1.3, D.1.4, and D.1.5.

D.1.12 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR Part 60, Subpart GG]

Compliance shall be determined utilizing the following option when combusting natural gas:

Pursuant to 40 CFR 60.334, Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in the turbines. Pursuant to 40 CFR 60.334 (b)(2), the custom monitoring schedule procedures approved by EPA on April 05, 2001 shall be accepted. Monitoring of these values shall be conducted as follows:

(a) The nitrogen content monitoring requirements pursuant to 40 CFR 60.334 (b) for the natural gas being fired in the gas turbines are waived since there is no fuel-bound nitrogen in pipeline natural gas, as defined by 40 CFR 72.2.

(b) The sulfur content values for the natural gas shall be monitored on a semi-annual frequency. The sulfur content of the natural gas being fired in the gas turbines shall be determined by the ASTM methods D 1072-80, D 3031-81, D 4084-82, or D 3246-81. The applicable ranges of some ASTM methods mentioned are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the Approval of the Administrator.

The sulfur and nitrogen content information obtained from this monitoring shall be used to document compliance with the limits stated in Conditions D.1.1, D.1.3, D.1.4, and D.1.5.

D.1.13 Nitrogen Oxides Monitoring Requirement [326 IAC 10-4-4(b)(1)] [326 IAC 10-4-12(b) and (c)] [40 CFR 75]

(a) The Permittee shall meet the monitoring requirements of 326 IAC 10-4-12(b)(1) through (b)(3) that are applicable to the monitoring systems for turbines T1 and T2 on or before May 1, 2003. The Permittee shall record, report, and quality assure the data from the monitoring systems on and after May 1, 2003 for turbines T1 and T2 in accordance with 326 IAC 10-4-12 and 40 CFR 75.

(b) The Permittee shall meet the monitoring requirements of 326 IAC 10-4-12(b)(1) through (b)(3) that are applicable to the monitoring system for turbine T3 on or before the later of the dates listed in paragraphs (1) and (2). The Permittee shall record, report, and quality assure the data from the monitoring systems for turbine T3 on and after the later of the following dates in accordance with 326 IAC 10-4-12 and 40 CFR 75:

(1) May 1, 2003.

(2) The earlier of:

(A) one hundred eighty (180) days after the date on which the unit commences operation; or

(B) ninety (90) days after the date the unit commences commercial operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.14 Visible Emissions Notations

(a) Visible emission notations of turbines T1, T2, and T3 stack exhausts shall be performed once per shift during normal daylight operations when combusting #2 fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.15 NOx Monitoring [40 CFR 75.12(d)]]

(a) Pursuant to EPA approval dated April 5, 2001, 40 CFR 72.9, and 40 CFR 75.12, the Permittee has elected to monitor NO_X emissions from the natural gas-fired combustion turbines pursuant to 40 CFR 75, Appendix E, which is used for peaking units. Appendix E includes, but is not limited to, the following requirements:

(1) The Permittee shall perform initial performance tests for each turbine to measure NO_X emission rates at heat input rate levels corresponding to different load levels and plot the correlation between heat input rate and NO_X emission rate in order to determine the emission rate of the units. This testing shall be performed in accordance with Section 2.1 of Appendix E.

(2) The Permittee shall retest the NO_X emission rate of the turbines prior to the earlier of 3,000 unit operating hours or the 5 year anniversary and renewal of its operating permit under 40 CFR Part 72.

(3) The Permittee shall record the time (hr. and min.), load (MWge or steam load in 1000 lb/hr), fuel flow rate and heat input rate (using the procedures in Section 2.1.3 of Appendix E) for each hour during which the unit combusts fuel. The Permittee shall calculate the total hourly heat input using equation E-1 of Appendix E and record the heat input rate for each fuel to the nearest 0.1 MMBtu/hr. During partial unit operating hours, heat input must be represented as an hourly rate in MMBtu/hr, as if the fuel were combusted for the entire hour at that rate in order to ensure proper correlation with the NO_X emission rate graph.

(4) The Permittee shall use the graph of the baseline correlation results to determine the NO_x emissions rate (lb/MMBtu) corresponding to the heat input rate

(MMBtu/hr) and input this correlation into the data acquisition and handling system for the turbines. The data shall be linearly interpolated to 0.1 MMBtu/hr heat input rate and 0.01 lb/MMBtu.

(b) If any combustion turbine exceeds a capacity factor of 20 percent in any given year, or exceeds an average capacity factor of 10 percent for the previous 3 years, then the Permittee shall install, certify, and operate a NO_X continuous emission monitoring system (CEMS) by December 31 of the following calendar year. The NO_X CEMS shall meet the minimum requirements of 40 CFR Part 75 and 326 IAC 3-5. If the required CEMS has not been installed and certified by that date, the owner or operator shall report the maximum potential NO_x emission rate (MER) (as defined in 40 CFR 72.2) for each unit operating hour, starting with the first unit operating hour after the deadline and continuing until the CEMS has been provisionally certified.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.16 Record Keeping Requirements

(a) To document compliance with Conditions D.1.5, D.1.10, and D.1.11, the Permittee shall maintain records of the sulfur content monitoring data. Records shall be taken pursuant to 40 CFR 60.334.

(b) To document compliance with Condition D.1.1 the Permittee shall maintain records of fuel usage.

(c) To document compliance with Condition D.1.9, the Permittee shall maintain records of fuel consumption and the ratio of water to fuel being fired in the turbines.

(d) To document compliance with Condition D.1.10, the Permittee shall maintain records of fuel without intermediate bulk storage.

(e) To document compliance with Condition D.1.13, the Permittee shall maintain records of visible emission notations of the turbine stack exhausts.

(f) To document compliance with Condition D.1.15, the Permittee shall record the time (hr. and min.), load (MWge), fuel flow rate and heat input rate (using the procedures in Section 2.1.3 of Appendix E) for each hour during which the unit combusts fuel. The Permittee shall record the heat input rate for each fuel to the nearest 0.1 MMBtu/hr. During partial unit operating hours, heat input must be represented as an hourly rate in MMBtu/hr, as if the fuel were combusted for the entire hour at that rate in order to ensure proper correlation with the NO_X emission rate graph.

(g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.17 Nitrogen Oxides Budget Trading Program [326 IAC 10-4-4(a)(1)] [326 IAC 10-4-9(e)(2)]

(a) For NO_x budget unit (turbine T3) that will commence operation on or after January 1, 2001, the NO_x authorized account representative shall submit a complete NO_x budget permit application in accordance with 326 IAC 10-4-7 at least two hundred seventy (270) days prior to the later of May 31, 2004 or the date on which the NO_x budget unit commences operation. This application shall be submitted by the NOx authorized account representative to:

Indiana Department of Environmental Management

Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) For NO_x budget unit (turbine T3) that will commence operation on or after May 1, 2000, the NO_x authorized account representative shall submit a request for NO_x allowances in accordance with 326 IAC 10-4-9(e) by September 1st of the calendar year that is one (1) year in advance of the first ozone control period for which the NO_x allowance allocation is requested. The NO_x authorized account representative shall submit a request each year that the unit will require allowances from the new unit set aside until the unit is allocated allowances from the existing source pool. These requests shall be submitted by the NO_x authorized account representative to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

D.1.18 Reporting Requirements

A quarterly report of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(c) Two (2) 630 horsepower diesel engines used for turbine start-up, identified as D7 and D8, each exhausting at stacks, identified as S/V 5 and S/V 6, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Fuel Usage Limitations

The Permittee requests and accepts fuel oil usage limits for diesel engines D7 and D8. The total fuel oil usage for diesel engines D7 and D8 shall be limited to 2,200 gallons per twelve consecutive month period with compliance determined at the end of each month. This is equivalent to 0.67 tons per year of NOx emissions.

D.2.2 Sulfur Content

The sulfur content of the fuel oil used by diesel engines D7 and D8 shall not exceed 0.17% sulfur by weight.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.2.4 Sulfur Content and Nitrogen Content

The sulfur content values for the #2 fuel oil shall be determined either by sampling on a semi-annual frequency or determined by sampling after each occasion that fuel is transferred to the storage tank from any other source. The latter requirement requires that after each addition of #2 fuel to the storage tank, sampling for sulfur content must be performed.

The sulfur content information obtained from this monitoring shall be used to document compliance with the limit stated in Condition D.2.2.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.5 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records of fuel usage.

(b) To document compliance with Condition D.2.2, the Permittee shall maintain records of the sulfur content monitoring data.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.6 Reporting Requirements

A quarterly report of the information to document compliance with Condition D.2.1 shall be submitted to the addresses listed in Section C – General Reporting Requirements, of this permit,

using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(d) Two (2) 300,000 gallon No. 2 fuel oil storage tanks, identified as FT10 and FT11.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels).

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.3 New Source Performance Standard [326 IAC 12-1][40 CFR 60, Subpart Kb]

Pursuant to the New Source Performance Standard 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels) and 326 IAC 12,

(a) The tank dimensions must be kept on file; and

(b) Any fuel stored with vapor pressure exceeding 5.2 kPa shall be reported to IDEM, OAQ; and

(c) The records required shall be kept for the life of the source.

SECTION E ACID RAIN PROGRAM CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Two (2) 38.7 megawatt (net) simple cycle gas turbines using natural gas as the primary fuel with No. 2 fuel oil used as a backup identified as T1 and T2, and using a water injection system as control, with each turbine exhausting to stacks, identified as S/V 3 and S/V 4, respectively. When using natural gas, T1 and T2 each have a maximum heat input capacity of 431.3 MMBtu/hr. When using No. 2 fuel oil, T1 and T2 each have a maximum heat input capacity of 424.5 MMBtu/hr.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

E.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

(a) The Acid Rain Permit for this source, AR 095-11900-00051, issued on July 25, 2000 is incorporated by reference into this Part 70 permit. Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain Permit issued for this source, and any other applicable requirements contained in 40 CFR 72 and 40 CFR 75 through 40 CFR 78.

(b) Where an applicable requirement of the Clean Air Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall apply.

E.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

(a) No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under the Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.

(b) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.

(c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and the
Anderson Office of Air Management

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46001
Mailing Address: 11610 North College Avenue, Carmel, Indiana 46032
Part 70 Permit No.: T095-12389-00051

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967
and the

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011
Phone: 765-648-6158
Fax: 765-648-5924

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46001
Mailing Address: 11610 North College Avenue, Carmel, Indiana 46032
Part 70 Permit No.: T095-12389-00051

This form consists of 2 pages **Page 1 of 2**

This is an emergency as defined in 326 IAC 2-7-1(12)
C The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
C The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

Indiana Department of Environmental Management
Office of Air Quality
Compliance Data Section

Quarterly Report

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46011
Mailing Address: 11610 N. College Avenue, Carmel, IN 46032
Part 70 Permit No.: T095-12389-00051
Part 70 Permit No.: T095-12389-00051
Facility: Turbines T1, T2, and T3
Pollutant: NO_x, CO
Parameter: Less than 8,003 MMSCF natural gas equivalents per twelve (12) consecutive month period
For every one million standard cubic feet of gas (MMSCF) consumed by turbine T3, the natural gas equivalent limit shall be reduced by one million standard cubic feet (MMSCF).
For every one million standard cubic feet of gas (MMSCF) consumed by turbine T1, the natural gas equivalent limit shall be reduced by 2.40 million standard cubic feet.
For every one million standard cubic feet of gas (MMSCF) consumed by turbine T2, the natural gas equivalent limit shall be reduced by 2.55 million standard cubic feet.
For every one thousand gallons of fuel oil (kgal) consumed by turbine T3, the natural gas equivalent limit shall be reduced by 0.392 million standard cubic feet.
For every one thousand gallons of fuel oil (kgal) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 0.471 million standard cubic feet.

Year: _____

	Natural Gas Usage This Month (MMCF)			Fuel Oil Usage This Month (kgal)			Natural Gas Usage for Past 11 Months (MMCF)			Fuel Oil Usage for Past 11 Months (kgal)			Total Natural Gas equivalents used for the past 12 Month Period (MMCF)
Month	T1	T2	T3	T1	T2	T3	T1	T2	T3	T1	T2	T3	

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality
Compliance Data Section
and the
Anderson Office of Air Management

Quarterly Report

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46011
Mailing Address: 11610 N. College Avenue, Carmel, IN 46032
Part 70 Permit No.: T095-12389-00051
Facility: Diesel Engines D7 and D8
Pollutant: NO_x, CO
Parameter: Less than 2,200 gal fuel oil per twelve (12) consecutive month period

Year: _____

Month	Fuel Oil Usage This Month (kgal)	Fuel Oil Usage for Past 11 Months (kgal)	Fuel Oil Usage for Previous 12 Month Period (kgal)

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and the
Anderson Office of Air Management

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION and COMPLIANCE MONITORING REPORT

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46001
Mailing Address: 11610 North College Avenue, Carmel, Indiana 46032
Part 70 Permit No.: T095-12389-00051

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____
Title/Position: _____
Signature: _____
Date: _____

Attach a signed certification to complete this report.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Bob Sidner, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (703) 633-1701 to speak directly to Mr. Sidner. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/BS

cc: File - Madison County
Madison County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document for a Significant Source Modification and Significant Permit Modification to a Title V Part 70 Operating Permit

Source Name:	Indiana Municipal Power Agency
Source Location:	6035 Park Road, Anderson, Indiana 46011
County:	Madison
SIC Code:	4911
Operation Permit No.:	T095-12389-00051
Operation Permit Issuance Date:	December 7, 2001
Significant Source Modification No.:	095-15883-00051
Significant Permit Modification No.:	095-16149-00051
Permit Reviewer:	ERG/BS

On August 8, 2002, the Office of Air Quality (OAQ) had a notice published in the Herald Bulletin of Anderson, Indiana, stating that Indiana Municipal Power Agency had applied for a Title V Part 70 Operating Permit to operate a gas turbine electric generating plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On August 20, 2002, Indiana Municipal Power Agency provided comments on the proposed Part 70 permit. The following is a summary of the comments and responses to those comments including any changes to the permit. The Table Of Contents has been modified, if applicable, to reflect these changes.

Comment 1:

Condition D.2.1 should state that the fuel usage limitation is equivalent to "0.67 tons per year of NOx emissions" instead of 0.24 tons per year in order to be consistent with the emissions calculations provided in Appendix A.

Response to Comment 1:

The following change has been made to correctly indicate that the diesel turbines' equivalent potential to emit NO_x, after the effect of the fuel limitation, is 0.67 tons per year, not 0.24 tons per year (Other changes are also shown that are a result of comments discussed elsewhere in this document):

D.2.1 Fuel Usage Limitations

The Permittee requests and accepts ~~diesel~~ fuel **oil** usage limits for diesel engines D7 and D8. The total ~~diesel~~ fuel **oil** usage for diesel engines D7 and D8 shall be limited to 2,200 gallons per twelve consecutive month period with compliance determined at the end of each month. This is equivalent to ~~0.24~~ **0.67** tons per year of NO_x emissions.

Comment 2:

IMPA has decided to add a natural gas-fired heater with a rated capacity of 2.0 MMBtu/hr. This unit qualifies as an insignificant activity since its heat input is less than 10 MMBtu/hr; however, the current natural gas usage limit of 8,025 MMCF/yr will need to be adjusted to accommodate the emission contribution from this unit so that the total PTE of the facility is less than 250 tons per year. The PTE carbon monoxide (CO) for the heater, based on an AP-42 emission factor of 84 lb CO/MMCF, is 0.72 tpy CO. Therefore, the natural gas usage limit should be reduced to 8,003 MMCF/yr in order to retain the source's PSD Minor source status.

There is only one (1) 84 MW turbine being added to the source. Please correct the description of turbine T3 in section D.1 to read "simple cycle gas turbine" instead of "simple cycle gas turbines".

IMPA requests that the allowable sulfur content limit in the distillate oil be changed from 0.3% to 0.17% sulfur to increase the quantity of fuel oil available to the turbines. The most widely available low sulfur diesel oil in today's market has a 0.05% sulfur content. We do not want a 0.05% sulfur content limit as the existing on-site oil storage tanks have some residual higher sulfur content oil that will be blended with low sulfur oil during normal operations and consumed as oil is used as fuel and the storage tank is replenished. As oil is only infrequently used, this complete "burn out" of the older, higher sulfur content oil may not be completed by the effective date of this permit, thus the need for the higher than 0.05% S limit. Because the gas contains essentially no sulfur, please correct Condition D.1.5 to limit the content of the gas and oil to 0.17% sulfur.

On the Quarterly Report form, page 9 of 10 of the Source Modification and page 38 of 41 of the Permit Modification, the first "Parameter" paragraph is incorrect and should be deleted to be consistent with the limits contained in Condition D.1.1.

Response to Comment 2:

The following changes have been made to: 1) correct the turbines' fuel usage limitation in order to accommodate the addition of the 2.0 MMBtu/hr natural-gas fired heater, 2) clarify that only one (1)additional 84 MW turbine is being added to this source at this time, 3) adjust the limited sulfur content of the fuel oil and natural gas available to the turbines, 4) correctly identify the OAQ, and 5) correct the Quarterly reporting form as necessary.

Note that pursuant to 40 CFR 75 Appendix E, the source has submitted the results of the optional NO_x emissions estimation protocol monitoring system. On December 6, 2000, OAQ reviewed and approved IMPA's monitoring systems report for the purposes of the Part 75 Acid Rain program. The report summarized the tests that were performed on turbines T1 and T2 at the IMPA - Anderson Station on July 11-13, 2000 in order to determine the estimation curves by establishing a ratio between fuel usage (in MMBtu/hour) and the corresponding NO_x emissions (in lb/MMBtu) from turbines T1 and T2. The test results provide more accurate emission factors for turbines T1 and T2 over a range of heat input. As a result, the equivalency factors for fuel usage have been revised , as follows, based on the worst case emission factors as indicated by the test results:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Two (2) 38.7 megawatt (net) simple cycle gas turbines using natural gas as the primary fuel with No. 2 fuel oil used as a backup identified as T1 and T2, and using a water injection system as control, with each turbine exhausting to stacks, identified as S/V 3 and S/V 4, respectively.

(b) One (1) 84 megawatt (MW) simple cycle gas turbine~~s~~, using natural gas as the primary fuel and #2 fuel oil as backup fuel, identified as T3, using water injection for NOx control when fuel oil is used, and exhausting to stack S/V 7. When using natural gas, T3 has a maximum heat input capacity of 858 MMBtu/hr. When using #2 fuel oil, T3 has a maximum heat input capacity of 850 MMBtu/hr.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.1 Fuel Usage Limitation - Prevention of Significant Deterioration [326 IAC 2-2][40 CFR 52.21]

The total amount of natural gas equivalents consumed by turbines T1, T2, and T3 shall be limited to ~~8,025~~ **8,003** million **standard** cubic feet of gas (MM**S**CF) per twelve consecutive month period with compliance determined at the end of each month.

(a) For every one million **standard** cubic feet of gas (MM**S**CF) consumed by turbine T3, the natural gas equivalent limit shall be reduced by one million **standard** cubic feet (MMCF).

(b) For every one million **standard** cubic feet of gas (MM**S**CF) consumed by turbine~~s~~ T1 ~~or T2~~, the natural gas equivalent limit shall be reduced by ~~2.132~~ **2.40** million **standard** cubic feet.

(c) For every one million standard cubic feet of gas (MMSCF) consumed by turbine T2, the natural gas equivalent limit shall be reduced by 2.55 million standard cubic feet.

(~~c~~ **d**) For every one thousand gallons of fuel oil (kgal) consumed by turbine T3, the natural gas equivalent limit shall be reduced by ~~0.391~~ **0.392** million **standard** cubic feet.

(~~d~~ **e**) For every one thousand gallons of fuel oil (kgal) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by ~~0.533~~ **0.471** million **standard** cubic feet.

This limit, in conjunction with the fuel limit on diesel engines D7 and D8 **and the potential to emit from one (1) 2.0 MMBtu/hr natural gas-fired heater,** has been incorporated to limit the potential to emit nitrogen oxidizes (NO_x) and carbon monoxide (CO) to less than 250 tons per twelve consecutive month period.

Compliance with this limit will render the requirements of 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration) not applicable.

D.1.5 Sulfur Dioxide [326 IAC 2-7-24] [40 CFR 60.333(b)] [326 IAC 7-1.1]

(a) Pursuant to Construction Permit 048-1841, issued May 11, 1990, the sulfur content of any fuel (natural gas or oil) used in turbines T1 and T2 shall be limited to ~~0.3%~~ **0.17%** sulfur by weight. Pursuant to 326 IAC 2-7-24, compliance with this limitation shall satisfy the requirements of 40 CFR 60.333(b) and 326 IAC 7-1.1.

(b) In order to ensure compliance with 40 CFR 60.333, the sulfur content of any fuel (natural gas or oil) used in turbine T3 shall be limited to ~~0.3%~~ **0.17%** sulfur by weight. Pursuant to 326 IAC 2-7-24, compliance with this limitation shall satisfy the requirements of 40 CFR 60.333(b) and 326 IAC 7-1.1.

Indiana Department of Environmental Management
Office of Air ~~Management~~ Quality
Compliance Data Section

Quarterly Report

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46011
Mailing Address: 11610 N. College Avenue, Carmel, IN 46032
Part 70 Permit No.: T095-12389-00051
Facility: Turbines T1, T2, and T3
Pollutant: NO_x, CO
~~Parameter: Less than 1,526 MMCF natural gas per twelve (12) consecutive month period~~
~~For every one (1) thousand gallons (kgal) of fuel oil consumed by the turbines, the natural gas usage limit shall be reduced by 0.101 million cubic feet.~~

Parameter: Less than ~~8,025~~ **8,003** MM**S**CF natural gas equivalents per twelve (12) consecutive month period
For every one million **standard** cubic feet of gas (MM**S**CF) consumed by turbine T3, the natural gas equivalent limit shall be reduced by one million **standard** cubic feet (MM**S**CF).
For every one million **standard** cubic feet of gas (MM**S**CF) consumed by turbine~~s~~ T1 ~~or T2~~, the natural gas equivalent limit shall be reduced by ~~2.132~~ **2.40** million **standard** cubic feet.
For every one million standard cubic feet of gas (MMSCF) consumed by turbine T2, the natural gas equivalent limit shall be reduced by 2.55 million standard cubic feet.
For every one thousand gallons of fuel oil (kgal) consumed by turbine T3, the natural gas equivalent limit shall be reduced by ~~0.391~~ **0.392** million **standard** cubic feet.
For every one thousand gallons of fuel oil (kgal) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by ~~0.533~~ **0.471** million **standard** cubic feet.

Note that the fuel oil equivalency factor for turbines T1 and T2 was updated to 0.471 MMSCF after the issuance of significant source modification 095-15883-00051. Significant permit modification 095-16149-00051 supersedes the significant source modification and incorporates all revisions into the existing Title V permit.

Comment 3:

The header of the permit has the wrong three digit county code on the permit number. T177 should

be changed to T095. This typographic error is included on the original Part 70 permit.

Response to Comment 3:

The permit has been revised, as appropriate, to correctly indicate that the county/source number for this source is 095-00051, not 177-00051.

Comment 4:

In Appendix A to the TSD, page 2 of 3, the emission factor for nickel on a distillate oil fired turbine is listed as "1.2E-03." AP-42 lists this emission factor as <4.6E-06.

Response to Comment 4:

IDEM acknowledges that the correct AP-42 emission factor for nickel for distillate oil fuel combustion is $<4.6 \times 10^{-6}$ lb/MMBtu. As a result, the source's nickel PTE is 0.034 tpy. The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. No changes were made to the permit or TSD as a result of this comment.

Comment 5:

The TSD states that compliance testing is not required for sulfur dioxide or nitrogen oxides since compliance will be demonstrated by implementing the custom monitoring schedule and conducting semi-annual sampling and fuel monitoring. This is not consistent with 40 CFR Part 60 Subpart GG. Please correct the permit to indicate that, pursuant to 40 CFR 60.335(b), initial performance testing is required for the new turbine.

Response to Comment 5:

Initial performance testing for NO_x and SO_2 is required for turbine T3 pursuant to 40 CFR Part 60 Subpart GG. The following condition has been added to indicate that the source must complete initial performance testing for turbine T3. The subsequent conditions have been re-numbered to accommodate this change. The OAQ prefers that the Technical Support Document (TSD) reflect the permit that was on public notice. Changes to the permit that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. No changes were made to the TSD as a result of this comment.

D.1.8 Testing Requirements [326 IAC 2-7-6(1),(6)][40 CFR Part 60 Subpart GG]

Within one hundred and eighty (180) days after initial startup of turbine T3, the Permittee shall conduct performance tests for NO_x and SO_2 on turbine T3, using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.1.3. Testing shall be conducted in accordance with Section C- Performance Testing.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents

has been modified, if applicable, to reflect these changes.

1. Pursuant to 326 IAC 10-4-2(16) turbines T1 and T2 are each considered an "electricity generating unit (EGU)" because each turbine commenced operation before January 1, 1997 and served as a generator during 1995 or 1996 that had a nameplate capacity greater than twenty-five (25) megawatts that produced electricity for sale under a firm contract to the electric grid. Pursuant to 326 IAC 10-4-1(a)(1), an "EGU" is a NO_x budget unit. Because this source meets the criteria of having one (1) or more NO_x budget units, it is a NO_x budget source. The Permittee shall be subject to the requirements of this rule. The NO_x authorized account representative has already submitted the permit application for turbines T1 and T2.

   Pursuant to 326 IAC 10-4-2(16) turbine T3 is considered an "electricity generating unit (EGU)" because it will commence operation after January 1, 1999 and will serve as a generator at any time that has a nameplate capacity greater than twenty-five (25) megawatts that will produce electricity for sale under a firm contract to the electric grid. Pursuant to 326 IAC 10-4-1(a)(1), an "EGU" is a NO_x budget unit. Because this source meets the criteria of having one (1) or more NO_x budget units, it is a NO_x budget source. The Permittee shall be subject to the requirements of this rule. Since turbine T3 will commence operation after May 1, 2000, the unit was not allocated NO_x allowances for the 2004, 2005, and 2006 ozone seasons from the existing EGU budget under 326 IAC 10-4-9(b)(1)(A). Therefore, if the NO_x authorized account representative requires NO_x allowances to be allocated, the NO_x authorized account representative shall submit a written request to the IDEM, OAQ for NO_x allowances in accordance with 326 IAC 10-4-9(e)(2) and (3).

   As a result, the following changes have been made to the permit to indicate that turbines T1, T2 and T3 are subject to 326 IAC 10-4 (NO_x Budget Trading Program):

D.1.13 Nitrogen Oxides Monitoring Requirement [326 IAC 10-4-4(b)(1)] [326 IAC 10-4-12(b) and (c)] [40 CFR 75]

(a) The Permittee shall meet the monitoring requirements of 326 IAC 10-4-12(b)(1) through (b)(3) that are applicable to the monitoring systems for turbines T1 and T2 on or before May 1, 2003. The Permittee shall record, report, and quality assure the data from the monitoring systems on and after May 1, 2003 for turbines T1 and T2 in accordance with 326 IAC 10-4-12 and 40 CFR 75.

(b) The Permittee shall meet the monitoring requirements of 326 IAC 10-4-12(b)(1) through (b)(3) that are applicable to the monitoring system for turbine T3 on or before the later of the dates listed in paragraphs (1) and (2). The Permittee shall record, report, and quality assure the data from the monitoring systems for turbine T3 on and after the later of the following dates in accordance with 326 IAC 10-4-12 and 40 CFR 75:

(1) May 1, 2003.

(2) The earlier of:

(A) one hundred eighty (180) days after the date on which the unit commences operation; or

(B) ninety (90) days after the date the unit commences commercial operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.~~12~~**14** Visible Emissions Notations

(a) Visible emission notations of turbines T1, T2, and T3 stack exhausts shall be performed once per shift during normal daylight operations when combusting #2 fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.~~13~~**15** Record Keeping Requirements

(a) To document compliance with Conditions D.1.5, D.1.10, and D.1.11, the Permittee shall maintain records of the sulfur content monitoring data. Records shall be taken pursuant to 40 CFR 60.334.

(b) To document compliance with Condition D.1.1 the Permittee shall maintain records of fuel usage.

(c) To document compliance with Condition D.1.9, the Permittee shall maintain records of fuel consumption and the ratio of water to fuel being fired in the turbines.

(d) To document compliance with Condition D.1.10, the Permittee shall maintain records of fuel without intermediate bulk storage.

(e) To document compliance with Condition D.1.~~12~~**13**, the Permittee shall maintain records of visible emission notations of the turbine stack exhausts.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.16 Nitrogen Oxides Budget Trading Program [326 IAC 10-4-4(a)(1)] [326 IAC 10-4-9(e)(2)]

(a) For NO_x budget unit (turbine T3) that will commence operation on or after January 1, 2001, the NO_x authorized account representative shall submit a complete NO_x budget permit application in accordance with 326 IAC 10-4-7 at least two hundred seventy (270) days prior to the later of May 31, 2004 or the date on which the NO_x budget unit commences operation. This application shall be submitted by the NOx authorized account representative to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) For NO_x budget unit (turbine T3) that will commence operation on or after May 1, 2000, the NO_x authorized account representative shall submit a request for NO_x allowances in accordance with 326 IAC 10-4-9(e) by September 1st of the calendar year that is one (1) year in advance of the first ozone control period for which the NO_x allowance allocation is requested. The NO_x authorized account representative shall submit a request each year that the unit will require allowances from the new unit set aside until the unit is allocated allowances from the existing source pool. These requests shall be submitted by the NO_x authorized account representative to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

On September 3, 2002, a member of the public, Stephen Loeschner, provided comments on the proposed Significant Source Modification and Significant Permit Modification to a Part 70 permit. The following is a summary of the comments and responses to those comments including any changes to the permit. The Table Of Contents has been modified, if applicable, to reflect these changes.

Comment 1:

I request that the maximum design "40 CFR 72.2 - Heat input" and maximum design MW generating capacity for all 5 units be included in the 16149 Section A.2 conditions as well as the Section D.1 and D.2 facility descriptions. Just what is the maximum design MW generating capacity is not easy to define. There is a power value that maximizes the return on capital investment consistent with the costs of maintenance and the chance of catastrophic failure due to trying to wring out the most profitable MW.

Response to Comment 1:

40 CFR 72.2 defines heat input rate as "the product (expressed in mmBtu/hr) of the gross calorific value of the fuel (expressed in mmBtu/mass of fuel) and the fuel feed rate into the combustion device (expressed in mass of fuel/hr) and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources."

The capacities of facilities listed in section A.2 and the D sections of a permit are used to identify facilities and are often an important factor in determining applicable requirements. In this case, the descriptions successfully identify each facility and can be used to determine the applicability of 40 CFR Part 60 Subpart GG pursuant to 40 CFR 60.330. Page 1 of Appendix A of the Technical Support Document contains all of the information necessary to determine the heat input rate for turbines T1, T2 and T3 as defined by 40 CFR 72.2. As this information is not required to be present in Section A.2 and the facility descriptions of Section D, and is already contained in Appendix A, no changes were made to the permit as a result of this comment.

Comment 2:

Condition D.1.8(a) refers to "pipeline supplied natural gas" and Condition D.1.11(a) refers to "pipeline quality natural gas". These terms are inconsistent and do not legally control the heat content, sulfur content, or other qualities of the gas. These terms should be replaced with "40 CFR 72.2 pipeline natural gas". To leave them in the permit would be sufficiently deceptive and misleading as to constitute 40 CFR 70.7(f)(1)(iii), IC 13-15-7-2(3)(A), "inaccurate statements". Also change any presence of "cubic feet" to "40 CFR 72.3 scf" throughout the permit.

Response to Comment 2:

40 CFR 72.2 defines pipeline natural gas as "a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline natural gas contains 0.5 grains or less of total sulfur per 100 standard cubic feet. Additionally, pipeline natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 Btu per standard cubic foot."

In order to clearly define the type, quality, and quantity of the natural gas fed to the turbines, the following changes have been made to the permit (Other changes are also shown that are a result of comments discussed elsewhere in this document):

D.1.~~8~~ **9** NSPS Compliance Provisions [40 CFR Part 60, Subpart GG]

(a) Pursuant to 40 CFR 60, Subpart GG and the custom monitoring schedule procedures approved by EPA on April 05, 2001, when combusting natural gas, the turbines shall comply with the sulfur dioxide emissions standard by using pipeline ~~supplied~~ natural gas**, as defined by 40 CFR 72.2**.

(b) No alternate fuel burned in the gas turbines shall contain sulfur in excess of 0.8 percent by weight.

D.1.~~11~~**12** Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR Part 60, Subpart GG]

Compliance shall be determined utilizing the following option when combusting natural gas:

Pursuant to 40 CFR 60.334, Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in the turbines. Pursuant to 40 CFR 60.334 (b)(2), the custom monitoring schedule procedures approved by EPA on April 05, 2001 shall be accepted. Monitoring of these values shall be conducted as follows:

(a) the nitrogen content monitoring requirements pursuant to 40 CFR 60.334 (b) for the natural gas being fired in the gas turbines are waived since there is no fuel-bound nitrogen in pipeline ~~quality~~ natural gas**, as defined by 40 CFR 72.2**.

(b) the sulfur content values for the natural gas shall be monitored on a semi-annual frequency. The sulfur content of the natural gas being fired in the gas turbines shall be determined by the ASTM methods D 1072-80, D 3031-81, D 4084-82, or D 3246-81. The applicable ranges of some ASTM methods mentioned are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the Approval of the Administrator.

The sulfur and nitrogen content information obtained from this monitoring shall be used to document compliance with the limits stated in Conditions D.1.1, D.1.3, D.1.4, and D.1.5.

Comment 3:

In order to provide 42 USC 7479(1) synthetic minor status of mixed nitrogen oxides ("NO_x") emissions for IMPA, there must be "40 CFR 52.21(b)(17) Federally enforceable" permit conditions within permit 16149 that produce a mathematical relationship leading to less than a 250 tons per year NO_x emission limitation. Condition D.1.1(a) of permit 12389 allowed 675.0 million cubic feet of gas per year for T1 and T2 combined. Increasing that 150% leads to 1688 million cubic feet of gas. The equivalency factors and fuel limitation in Condition D.1.1 of permit 16149 allow for 3,764.1 million cubic feet of gas per year for T1 and T2. While the stock AP-42 water-steam "controlled" emission factor of 0.13 pounds NO_x per million Btu combined with a nominal 1,020 Btu per cubic feet of gas and 3,764.1 million cubic feet of gas does calculate to 249.56 tpy NO_x, it is no way federally enforceable, as not only may the gas have a higher heat content, but T1 and T2 may have a higher NO_x emission rate than the AP-42 emission factor. In addition, IDEM has required no testing of turbines T1, T2 or T3.

Note that Southern Indiana Gas and Electric Company was issued 163-15853-00001 to adjust NO_x emissions rates and fuel limits on turbine unit #1 based on stack test results. Turbine unit #1 at this source could not comply with a 0.32 pounds NO_x per million Btu emission rate and is consequently now limited to 0.545 pounds of NO_x per million Btu via 163-15853-00001. Without requiring stack testing, IMPA's natural gas equivalents limit of 8,025 million cubic feet should be reduced to 4,699 million cubic feet.

Also note that the 160 MW IMPA source is larger than the 132 MW Cinergy Cadiz, issued 065-10469-00032 on July 15, 1999. A continuous emission monitoring system ("CEMS") is required on each of the Cinergy 44 MW turbine stacks for NO_x and CO. Absolutely nothing less is appropriate for the three IMPA stacks in accordance with 326 IAC 3-5-1(d)(1).

IMPA was previously allowed to emit up to 100 tpy of any criteria pollutant. In light of compelling technical and economical reality of the available equipment, it is not reasonable to allow a 150% pollution increase without CEMS control of both CO and NO_x on the three largest emission units. IDEM must use its 326 IAC 3-5-1(d)(1) authority to compel IMPA to install calibrate, certify, and use CEMS for NO_x and CO on all three turbines in order to assure the source's PSD Minor status. IDEM must prohibit construction of turbine T3 unless simultaneous CEMS construction is conducted.

Unless the emission limits provided in a permit account for reasonable measurement error, the permitted source, while seemingly complying with those limitations, could actually emit in excess of its allowable limits. For example, consider a source with a NO_x limit of less than 250 tpy that uses a CEMS in order to determine compliance. There could be a 3% error in the measurement of stack gas volumetric rate and stack gas NO_x concentration, totaling 6% error. If the CEMS indicated that the source emitted 249.9 tpy, then the source could have actually emitted as much as 264.9 tpy - a violation that would go unacknowledged. Therefore, I request that IMPA's limits be recalculated assuming maximum possible error in order to prevent a violation of its PSD Minor limit.

Response to Comment 3:

IDEM considered the installation of CEMS during the review and issuance of the original Part 70

Operating Permit issued to IMPA on December 7, 2001. That permit included voluntary conditions that limitted the potential to emit NO_x and CO to less than 100 tons per year. The applicable emission threshold for major new source review is 250 tons per year. The Acid Deposition Control Program allows "peaking units" to use an alternative to CEMS that relies on a combination of performance stack tests and fuel monitoring to determine actual emissions. Because the Acid Deposition Control Program (40 CFR 72, and 40 CFR 75) allows for an alternative method, and compliance was being demonstrated at a level well below the major new source review threshold, IDEM approved that method for demonstrating compliance with the 100 tons per year limits.

A similar approach is included for the source as modified by this permit. The IMPA permit now contains conditions to limit the potential to emit NO_x and CO from the entire source to less than 250 tons per year. The maximum annual emissions from all three units combined when operating as "peaking units" as defined by the Acid Deposition Control Program and 40 CFR 72.2 would be 108.5 tons NO_x and 54.32 tons CO as shown below:

Unit	Maximum NOx Emission Rate (lb/hr)	Maximum CO Emission Rate (lb/hr)	Estimated NOx Emissions (tpy)	Estimated CO Emissions (tpy)
T1	45.48 (1)	4.84 (1)	39.8	4.24
T2	45.48 (1)	4.84 (1)	39.8	4.24
T3	33.00 (2)	52.34 (2)	28.9	45.84
Total			108.5	54.32

(1) From stack testing
(2) Provided by the manufacturer
Methodology: Estimated NO_x (or CO) Emissions (ton/yr) = Maximum NO_x (or CO) emission rate (lb/hr) x 8760 hr/yr x 20% (single year capacity factor for a peaking unit per 40 CFR 72.2) x 1/2000 ton/lb

Since these levels are still well below the major new source review threshold and maximum permit limit of 250 tons per year, the IDEM feels that the method is an acceptable alternative to CEMS. The permit has been modified to require that if any unit no longer qualifies as a "peaking unit", then CEMS must be installed and operated to demonstrate compliance with both the requirements of the Acid Deposition Control Program and with the permit limits. As a result, the following changes have been made to the permit:

D.1.8 Testing Requirements [326 IAC 2-7-6(1),(6)][40 CFR Part 60 Subpart GG] **[40 CFR 75.12]**

(a) Within one hundred and eighty (180) days after initial startup of turbine T3, the Permittee shall conduct performance tests for ~~NO_x and~~ SO_2 on turbine T3, using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.1.3. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) The Permittee shall perform initial performance tests for turbine T3 to measure NO_x emission rates at heat input rate levels corresponding to different load levels and plot the correlation between heat input rate and NO_x emission rate in order to determine the emission rate of the units. This testing shall be performed in accordance with Section 2.1 of Appendix E of 40 CFR 75.

(c) The Permittee shall retest the NO_x emission rate of each turbine prior to the earlier of 3,000 unit operating hours or the 5 year anniversary and renewal of its operating

permit under 40 CFR Part 72. This testing shall be performed in accordance with Section 2.1 of Appendix E of 40 CFR 75.

D.1.15 NOx Monitoring [40 CFR 75.12(d)]]

(a) Pursuant to EPA approval dated April 5, 2001, 40 CFR 72.9, and 40 CFR 75.12, the Permittee has elected to monitor NO_X emissions from the natural gas-fired combustion turbines pursuant to 40 CFR 75, Appendix E, which is used for peaking units. Appendix E includes, but is not limited to, the following requirements:

(1) The Permittee shall perform initial performance tests for each turbine to measure NO_X emission rates at heat input rate levels corresponding to different load levels and plot the correlation between heat input rate and NO_X emission rate in order to determine the emission rate of the units. This testing shall be performed in accordance with Section 2.1 of Appendix E.

(2) The Permittee shall retest the NO_X emission rate of the turbines prior to the earlier of 3,000 unit operating hours or the 5 year anniversary and renewal of its operating permit under 40 CFR Part 72.

(3) The Permittee shall record the time (hr. and min.), load (MWge or steam load in 1000 lb/hr), fuel flow rate and heat input rate (using the procedures in Section 2.1.3 of Appendix E) for each hour during which the unit combusts fuel. The Permittee shall calculate the total hourly heat input using equation E-1 of Appendix E and record the heat input rate for each fuel to the nearest 0.1 MMBtu/hr. During partial unit operating hours, heat input must be represented as an hourly rate in MMBtu/hr, as if the fuel were combusted for the entire hour at that rate in order to ensure proper correlation with the NO_X emission rate graph.

(4) The Permittee shall use the graph of the baseline correlation results to determine the NO_x emissions rate (lb/MMBtu) corresponding to the heat input rate (MMBtu/hr) and input this correlation into the data acquisition and handling system for the turbines. The data shall be linearly interpolated to 0.1 MMBtu/hr heat input rate and 0.01 lb/MMBtu.

(b) If any combustion turbine exceeds a capacity factor of 20 percent in any given year, or exceeds an average capacity factor of 10 percent for the previous 3 years, then the Permittee shall install, certify, and operate a NO_X continuous emission monitoring system (CEMS) by December 31 of the following calendar year. The NO_X CEMS shall meet the minimum requirements of 40 CFR Part 75 and 326 IAC 3-5. If the required CEMS has not been installed and certified by that date, the owner or operator shall report the maximum potential NO_x emission rate (MER) (as defined in 40 CFR 72.2) for each unit operating hour, starting with the first unit operating hour after the deadline and continuing until the CEMS has been provisionally certified.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.~~15~~ **16** Record Keeping Requirements

(a) To document compliance with Conditions D.1.5, D.1.10, and D.1.11, the Permittee shall

maintain records of the sulfur content monitoring data. Records shall be taken pursuant to 40 CFR 60.334.

(b) To document compliance with Condition D.1.1 the Permittee shall maintain records of fuel usage.

(c) To document compliance with Condition D.1.9, the Permittee shall maintain records of fuel consumption and the ratio of water to fuel being fired in the turbines.

(d) To document compliance with Condition D.1.10, the Permittee shall maintain records of fuel without intermediate bulk storage.

(e) To document compliance with Condition D.1.13, the Permittee shall maintain records of visible emission notations of the turbine stack exhausts.

(f) To document compliance with Condition D.1.15, the Permittee shall record the time (hr. and min.), load (MWge), fuel flow rate and heat input rate (using the procedures in Section 2.1.3 of Appendix E) for each hour during which the unit combusts fuel. The Permittee shall record the heat input rate for each fuel to the nearest 0.1 MMBtu/hr. During partial unit operating hours, heat input must be represented as an hourly rate in MMBtu/hr, as if the fuel were combusted for the entire hour at that rate in order to ensure proper correlation with the NO_X emission rate graph.

(~~f~~ **g**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 4:

The sulfur dioxide values and footnote (a) in the table located on page 5 of the Technical Support Document are grossly misrepresented. If 40 CFR 72.2 pipeline natural gas was combined with the 8,025 million cubic feet gas limit, then the equivalent SO_2 emissions would equal 6.88 tpy. This is significantly different than the 0.01 tpy figure listed on page 5 of the Technical Support Document.

Response to Comment 4:

As stated in Condition D.1.9, the source must use pipeline natural gas, as defined by 40 CFR 72.2, to comply with the respective sulfur dioxide emission limitations. According to 40 CFR 72.2, pipeline natural gas is natural gas with a sulfur content less than 0.5 grains per 100 standard cubic feet of gas. As a result, the source's potential to emit SO_2, after consuming 100% of the available fuel limit, is 5.72 tpy. The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. No changes were made to the permit or TSD as a result of this comment.

Comment 5:

Section D.2 does not contain a condition limiting the sulfur content of the fuel oil used in engines D7 and D8. As a result, the table located on page 5 of the Technical Support Document grossly

misrepresents the SO2 PTE of engines D7 and D8. Assuming a fuel oil density of 7.5 lb/gal and a sulfur content of 0.8%, then the SO2 PTE of the engines would be 0.132 tpy.

Response to Comment 5:

The source indicated that diesel engines D7 and D8 use the same fuel oil available to the turbines. The sulfur content of the fuel oil used in the turbines is limited to 0.17% by weight. As indicated in Appendix A, the aggregate SO_2 PTE (based on the fuel limit) of engines D7 and D8 is significantly less than one (1) ton per year. The following conditions were added to the permit as a result of this comment and the other D.2 conditions renumbered.

D.2.2 Sulfur Content

The sulfur content of the fuel oil used by diesel engines D7 and D8 shall not exceed 0.17% sulfur by weight.

D.2.~~2~~ **3** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.4 Sulfur Content and Nitrogen Content

The sulfur content values for the #2 fuel oil shall be determined either by sampling on a semi-annual frequency or determined by sampling after each occasion that fuel is transferred to the storage tank from any other source. The latter requirement requires that after each addition of #2 fuel oil to the storage tank, sampling for sulfur content must be performed.

The sulfur content information obtained from this monitoring shall be used to document compliance with the limit stated in Condition D.2.2.

D.2.~~3~~ **5** Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records of fuel usage.

(b) To document compliance with Condition D.2.2, the Permittee shall maintain records of the sulfur content monitoring data.

(~~b~~ **c**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.~~5~~ **6** Reporting Requirements

Comment 6:

Based on the limits contained in Condition D.1.1, the source is allowed to emit 461.8 tpy SO2 if the turbine T3 combusted only fuel oil. If the fuel oil has a density of approximately 7.5 lb/gal, then: 8025 $x10^6$ (cf gas) x 1/391 (gal oil/cf gas) x 7.5 (lb/gal) x 0.003 (lb S/lb oil) x 64/32 (lb SO2/ lb S) x (1/2000 ton/lb) = 461.8 tpy SO2. Again, the sulfur dioxide values and footnote (a) in the table located on page 5 of the Technical Support Document are grossly misrepresented.

Response to Comment 6:

The correct SO2 emission factor for turbines T1, T2, and T3 is 0.1717 lb/MMBtu when burning fuel oil. As indicated in Response to Comment 2, the updated fuel oil equivalency factor for T3 is 0.392 MMCF/kgal. The resulting limited potential to emit SO2 from turbine T3 when it combusts only fuel oil is equal to 242 tpy determined by the following equation: 8,003 (MMCF/yr) x 1/0.392 (kgal/MMCF) x 1000 (gal/kgal) x 138,123 (Btu/gal) x 1/1,000,000 (MMBtu/Btu) x 0.1717 (lb/MMBtu) x 1/2000 (ton/lb) = 242 tpy SO2. This potential to emit, when combined with the potential to emit from diesel engines D7 and D8 and the natural gas heater are less than 250 tons per year SO2. No changes have been made to the permit as a result of this comment.

Comment 7:

The SO_2 portions of permit 16149 are written about a volume of oil and a weight ratio of sulfur as a contaminant. Without a condition limiting the maximum weight per unit volume of oil, the permit is without meaning. As a result, IDEM must identify and control the maximum weight per gallon of oil by modifying Conditions D.1.5 and D.2.1 as appropriate.

Response to Comment 7:

IDEM understands that the quantity of SO_2 emitted from a source that combusts oil depends on the amount of sulfur present in the oil. The SO_2 emissions from the turbines and engines could vary if the source chose to combust fuel oil of higher density. However, the turbines and engines are designed to combust distillate fuel oil. Different suppliers provide grades of distillate fuel oil of negligible varying densities. As a result, a condition specifying the density of distillate fuel oil combusted is not required. No changes were made to the permit as a result of this comment.

Comment 8:

Condition D.2.1 mentions diesel fuel twice. If the oil is to be in conformance with “40 CFR 72.2 diesel fuel,” then I request that it be cited explicitly. If such a distinction is not necessary, then I request that the phrase “diesel fuel” be removed from the permit as to leave it in the permit would be sufficiently deceptive and misleading as to constitute 40 CFR 70.7(f)(1)(iii), IC 13-15-7-2(3)(A), “inaccurate statements”.

Response to Comment 8:

Condition D.2.1 has been modified, as follows, to clarify that the diesel engines combust fuel oil (Other changes are also shown that are a result of comments discussed elsewhere in this document):

D.2.1 Fuel Usage Limitations

The Permittee requests and accepts ~~diesel~~ fuel **oil** usage limits for diesel engines D7 and D8. The total ~~diesel~~ fuel **oil** usage for diesel engines D7 and D8 shall be limited to 2,200 gallons per twelve consecutive month period with compliance determined at the end of each month. This is equivalent to ~~0.24~~ **0.67** tons per year of NO_x emissions.

Response to Comment 10:

The source is not required to determine compliance with CEMS. However, the source is required to

monitor the fuel flow and ratio of water to fuel in the turbines. Pursuant to 40 CFR 75 Appendix D 2.1.6.1, the source must test and calibrate the fuel flow monitoring devices annually so that the devices have an attributable error of no greater than 2%. In addition, IDEM reserves the authority to check records required for compliance and if those records show that actual emissions are close to the respective emission limit, IDEM can decide to examine the records in greater detail to ensure compliance. No changes were made to the permit as a result of this comment.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Indiana Municipal Power Agency
Source Location:	6035 Park Road, Anderson, Indiana 46011
County:	Madison
SIC Code:	4911
Operation Permit No.:	T095-12389-00051
Operation Permit Issuance Date:	December 7, 2001
Significant Source Modification No.:	095-15883-00051
Significant Permit Modification No.:	095-16149-00051
Permit Reviewer:	ERG/BS

The Office of Air Quality (OAQ) has reviewed a modification application from Indiana Municipal Power Agency (IMPA) relating to:

(1) The construction of the following emission units and pollution control devices:

One (1) 84 MW simple cycle gas turbine, using natural gas as the primary fuel and #2 fuel oil as backup fuel, identified as T-3, using water injection for NOx control when fuel oil is used, and exhausting to stack S/V 5. When using natural gas, T-3 has a maximum heat input capacity of 858 MMBtu/hr. When using #2 fuel oil, T-3 has a maximum heat input capacity of 850 MMBtu/hr.

(2) An increase in the source-wide emissions limit from 100 tons per year to 250 tons per year per pollutant. The source has requested that a single maximum natural gas and fuel oil usage limit be placed on the two existing turbines (identified as T1 and T2) and the new turbine (T3). The 100 ton per year limit was voluntarily taken by the Permittee. This is being revised to 250 tons per year since the source is not 1 of 28 source categories.

(3) An increase in the existing diesel engines' (identified as D7 and D8) fuel usage from 1,099 gallons per year to 2,200 gallons per year in order to accommodate the addition of the 84 MW gas turbine and still maintain the source's PSD minor status.

Existing Permitted Emission Units and Control Equipment

The following existing units have been included in this Technical Support Document because the addition of the 84 MW simple cycle gas turbine effects the limitations that apply to the existing units:

(a) Two (2) 38.7 MW simple cycle gas turbines using natural gas as the primary fuel with No. 2 fuel oil used as a backup, identified as T-1 and T-2, constructed in 1991, using a water injection system as control, exhausting to stacks, S/V 3 and S/V 4, respectively.

(b) Two (2) 630 horsepower diesel engines used for turbine start-up, identified as D7 and D8, constructed in 1991, exhausting at stacks, S/V 5 and S/V 6, respectively.

(c) Two (2) 300,000 gallon No. 2 fuel oil storage tanks, identified as FT10 and FT11.

The addition of the 84 MW simple cycle gas turbine has no effect on the limitations or requirements that apply to the fuel oil storage tanks. As a result, the fuel oil storage tanks are not discussed further.

History

On May 11, 1990, the Indiana Municipal Power Agency (IMPA) was issued CP-048-1841 to permit the construction of two (2) 38.7 MW natural gas and fuel oil fired simple cycle turbines, two (2) 630 hp diesel engines used for turbine start up, and two (2) 300,000 gallon fuel oil tanks. On December 12, 1996, IMPA was issued FESOP 095-5162-00051 for the existing equipment. On July 25, 2000, IMPA was issued an Acid Rain permit (AR 095-11900-00051) for the operation of the two (2) 38.7 MW natural gas-fired simple cycle turbines. On December 7, 2001, IMPA was issued a Part 70 operating permit (T095-12389-00051) for the operation of two (2) 38.7 MW natural gas and fuel oil fired simple cycle turbines, two (2) 630 hp diesel engines used for turbine start up, and two (2) 300,000 gallon fuel oil tanks. The Part 70 permit retained the 100 ton per year source-wide emission limit from the previous FESOP because the source (at that time) was not expected to generate emissions greater than 100 tons per year. On April 19, 2002, IDEM, OAQ received an application for a Significant Source Modification and a Significant Permit Modification to a Part 70 Permit. The application requested: 1) the addition of a 84 MW natural gas and fuel oil fired, simple cycle gas turbine (identified as T3); 2) an increase from the 100 tpy source wide emissions limit to the legally-afforded 250 tpy emissions limit to accommodate the addition of the 84 MW turbine; and 3) an increase in the existing diesel engines' (identified as D7 and D8) fuel usage to accommodate the addition of the 84 MW turbine.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary of New Units

Stack ID	Operation	Height (feet)	Dimensions (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S/V 7	electricity generation	56	rectangular: 1.8 x 2.0	unknown	1000

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 19, 2002. Additional information was received on July 10 and July 22, 2002.

Emission Calculations

See Appendix A (pages 1 through 3) of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls based on the worst case emissions from the combustion of natural gas and fuel oil in the 84 MW simple cycle gas turbine, identified as T-3. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	44.7
PM-10	44.7
SO_2	11.3
VOC	7.9
CO	229.3
NO_x	654.5

HAP	Potential To Emit (tons/year)
1,3 Butadiene	0.06
Acetaldehyde	0.15
Acrolein	0.024
Benzene	0.205
Ethylbenzene	0.12
Formaldehyde	2.668
Naphthalene	0.13
PAH	0.149
Propylene Oxide	0.109
Toluene	0.489
Xylene	0.241
Nickel	4.468
Manganese	1.266
Phosphorus	1.677
Lead	0.216
Chromium	0.175
Antimony	0.082
Arsenic	0.018
TOTAL	11.53

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification and Significant Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4)(c) and 326 IAC 2-7-12(b)(D)(i) as the potential to emit PM, PM10, CO, and NO_x is greater than 25 tons per year and the source is adjusting its federally-enforceable emissions limit. This modification does not qualify as a minor modification because the applicable NSPS (40 CFR Part 60 Subpart GG) is not the most stringent limitation as the source has accepted a fuel usage limit for the new and existing turbines to remain a PSD Minor Source.

County Attainment Status

The source is located in Madison County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Madison County has been designated as attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2.

(b) Madison County has been classified as attainment for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2.

(d) Fugitive Emissions
Since there are applicable New Source Performance Standards that were in effect on August 7, 1980 (40 CFR part 60 Subpart GG), fugitive emissions are counted toward determination of PSD applicability. Note that fugitive emissions are negligible.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited). Note that the source was issued FESOP 095-5162-00051 on December 12, 1996. The source wide FESOP limits were carried through into the Part 70 permit 095-12389-00051 issued December 7, 2001.

Pollutant	Emissions (tons/year)
PM	less than 100
PM-10	less than 100
SO_2	less than 100
VOC	less than 100

CO	less than 100
NOx	less than 100

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories. Note that the new and existing and turbines are simple cycle gas turbines, not steam turbines.

(b) These emissions are based upon the information provided in the Technical Support Document for the source's Part 70 permit, T095-12389-00051, issued December 7, 2001.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification. Note that the existing turbines are included in this table because the aggregate natural gas and fuel oil consumed by both the new and existing turbines are limited to render the requirements of 326 IAC 2-2 not applicable.

Limited Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Two (2) existing 38.7 MW simple cycle turbines (T1 and T2)[(a)]	23.12	23.12	0.01	8.19	Less than 249.7	Less than 249.3	2.4
One (1) new 84 MW simple cycle turbine (T3)[(a)]							
Two (2) existing diesel engines [(b)]	0.05	0.05	0.04	0.05	0.14	0.67	Negl.
TOTAL	5.19	5.19	2.23	1.68	Less than 250	Less than 250	2.4
PSD Significance Level [(c)]	250	250	250	250	250	250	NA

Negl. - Negligible

(a) The amount of natural gas consumed by the two existing turbines and one new turbine are limited to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. Since the emissions from the source will depend on the specific turbine and the type of fuel used, the natural gas limitation is modified with the use of an equivalence factor dependent on the operating scenario. The limited emissions presented in the table are from the combustion of natural gas because turbines utilize natural gas as their primary fuel; fuel oil is only used as a backup. See Appendix A for more details.

(b) The amount of fuel oil consumed by the diesel engines are limited to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. See Appendix A for more details.

(c) The existing Part 70 permit retained a 100 ton per year source-wide emission limit from a previously issued FESOP because the source (at that time) wanted to be a FESOP source. As a result, the PSD significance level for this modification is 250 tons per year.

This modification to an existing minor stationary source is not major because the source is retaining its PSD Minor status by limiting the fuel usage of the turbines (T1, T2, and T3) and diesel

engines (D7 and D8) such that the respective pollutant emissions from those sources are less than 250 tons per year. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) Turbines T1, T2, and T3 are subject to the New Source Performance Standard (NSPS), 326 IAC 12, 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). Therefore, the Permittee shall comply with the provisions of 40 CFR 60, Subpart GG, as follows:

(1) limit nitrogen oxides emissions, as required by 40 CFR 60.332, to:

$$STD = 0.0075 \frac{(14.4)}{Y} + F,$$

where STD = allowable NO_x emissions (percent by volume at 15 percent oxygen on a dry basis).

(STD, for each turbine is equal to 0.0148% when combusting natural gas; STD, for each turbine is equal to 0.0094% when combusting fuel oil)

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peck load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

(For natural gas, Y = 11.06; For fuel oil, Y = 11.52)

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of 40 CFR 60.332.

(For natural gas with a nitrogen content >0.25%, F = 0.005; For fuel oil with a nitrogen content <0.015%, F= 0)

(2) Limit sulfur dioxide emissions, as required by 40 CFR 60.333, to 0.015 percent by volume at 15 percent oxygen on a dry basis, or use natural gas fuel with a sulfur content less than or equal to 0.8 percent by weight;

(3) Install a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine, as required by 40 CFR 60.334(a);

(4) Determine compliance with the nitrogen oxides and sulfur dioxides standards in 40 CFR 60.332 and 40 CFR 60.333(a), per the requirements described in 40 CFR 60.335(c) Note that custom monitoring schedule procedures, approved by the EPA on April 5, 2001, apply to the natural gas and diesel fuel used at the site/source and are not specific to which turbine uses the fuel. According to the approval, IDEM and the EPA would need to be contacted if there is a change in fuel supply, such as a change in fuel quality. Since the fuel supply will not change, the custom schedule procedures apply to turbine T3 and do not need to be modified or changed for the to accommodate the addition of turbine T3;

(5) Monitor the sulfur content and nitrogen content of the fuel being fired in the turbine, as required by 40 CFR 60.334(b); and

(6) Report periods of excess emissions, as required by 40 CFR 60.334(c).

There are no other New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) applicable to this facility.

(c) This facility is subject to the requirements of 40 CFR Part 72 through 40 CFR Part 80 (Acid Rain Program).

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

(e) Turbines T1, T2, and T3 are not subject to the provisions of 40 CFR Part 64, Compliance Assurance Monitoring (CAM). In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and, 3) the unit has potential precontrol device emissions of the applicable regulated air pollutant that are equal or greater than 100 percent of the amount required for a source to be classifies as a major source. The turbines are subject to 40 CFR Part 60 Subpart GG and have the potential to emit NOx greater than major source thresholds after the control device. However, pursuant to 40 CFR 64.2(a)(3), any source subject to 40 CFR Part 75 (Acid Rain) is exempt from 40 CFR Part 64 (CAM).

State Rule Applicability - One (1) 84 MW simple cycle gas turbine

326 IAC 2-2 (Prevention of Significant Deterioration)

Pursuant to F095-5162-00051, issued December 12, 1996, and T095-12389-00051, issued December 7, 2001, the total amount of natural gas and fuel oil consumed by turbines T1 and T2 were limited to 675 million cubic feet of gas and 3.36 million gallons of oil. Compliance with this limit, and a 1100 gallon fuel usage limitation placed on diesel engines D7 and D8, would limit the entire source's emissions to less than 100 tons per year. With the addition of turbine (T3), the source has requested to increase the source-wide emissions limit to the legally afforded 250 tons per year per pollutant to accommodate the addition of turbine T3 and remain a PSD minor source. See Appendix A for detailed emission calculations. As a result, the following limit shall apply to turbines T1, T2, and T3:

The total amount of natural gas equivalents consumed by turbines T1, T2, and T3 shall be limited to 8,025 million cubic feet of gas (MMCF) per twelve consecutive month period with compliance determined at the end of each month.

(a) For every one million cubic feet of gas (MMCF) consumed by turbine T3, the natural gas equivalent limit shall be reduced by one million cubic feet (MMCF).

(b) For every one million cubic feet of gas (MMCF) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 2.132 million cubic feet.

(c) For every one thousand gallons of fuel oil (kgal) consumed by turbine T3, the natural gas equivalent limit shall be reduced by 0.391 million cubic feet.

(d) For every one thousand gallons of fuel oil (kgal) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 0.533 million cubic feet.

This limit, in conjunction with the fuel limit on diesel engines D7 and D8 has been incorporated to limit the potential to emit nitrogen oxidizes (NO_x) and carbon monoxide (CO) to less than 250 tons per twelve consecutive month period.

Compliance with this limit will render the requirements of 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration) not applicable.

326 IAC 2-4.1 (Hazardous Air Pollutants)

Turbines T1, T2 and T3 are not subject to the requirements of 326 IAC 2-4.1 because they each have the potential to emit less than 10 tons per year of any single HAP, and less than 25 tons per year of any combination of HAPs.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity from turbines T1, T2, and T3 shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6 (Particulate Matter Emission Limitations)

Turbines T1, T2 and T3 are not subject to any 326 IAC 6 rules because it is not a source of indirect heating and does not operate as part of a manufacturing process.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1, the sulfur dioxide emissions from turbines T1, T2 and T3 shall be limited to 0.5 pounds per MMBtu heat input when combusting distillate fuel oil.

Pursuant to CP 048-1841, issued May 11, 1990, the sulfur content of any fuel (natural gas or oil) used in turbines T1 and T2 to 0.3% sulfur by weight. The source has agreed to limit the sulfur content of the fuel used in turbine T3 to 0.3% sulfur by weight as well. Pursuant to 326 IAC 2-7-24, compliance with this limitation shall satisfy the requirements of 40 CFR 60.333(b) and 326 IAC 7-1.1.

326 IAC 8 (Volatile Organic Compounds)

Turbines T1, T2, and T3 are not subject to any 326 IAC 8 rules because they each do not have the potential to emit greater than 25 tons per year VOC or engage in any operations specifically limited by the rule.

State Rule Applicability - Diesel Engines D7 and D8

326 IAC 2-2 (Prevention of Significant Deterioration)

The total amount of fuel oil consumed by diesel engines D7 and D8 shall be limited to 2,200 gallons per twelve consecutive month period. This limit is structured such that, when including the combined limited emissions from the turbines, the total NOx and CO emissions from the source do not exceed 250 tons per twelve (12) consecutive month period.

Compliance with this limit will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

326 IAC 6 (Particulate Matter Emission Limitations)

Diesel engines D7 and D8 are not subject to any 326 IAC 6 rules because they are not a source of indirect heating and do not operate as part of a manufacturing process.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Diesel engines D7 and D8 each have the potential to emit less than 25 tons per year sulfur dioxide. Therefore, engines D7 and D8 are not subject to the requirements of 326 IAC 7-1.1.

Compliance Testing

The Permittee shall demonstrate compliance with the sulfur dioxide (SO_2) limitations by implementing the custom monitoring schedule procedures approved by the EPA on April 5, 2001 and by conducting semi-annual sampling and fuel monitoring. As a result, testing is not required for sulfur dioxide.

The Permittee shall demonstrate compliance with the nitrogen oxides (NO_x) limitations by implementing the custom monitoring schedule procedures approved by the EPA on April 5, 2001 and by operating a continuous monitoring system to monitor the fuel consumption and ratio of water to fuel being fired in the turbine. As a result, testing is not required for nitrogen oxides.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Turbine T1, T2, and T3 applicable compliance monitoring conditions as specified below:

(a) Compliance shall be determined utilizing the following option when combusting <u>fuel oil</u>:

Pursuant to 40 CFR 60.334, Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in the turbine. Pursuant to 40 CFR 60.334 (b)(2), the custom monitoring schedule procedures approved by EPA on April 05, 2001 shall be accepted. Monitoring of these values shall be conducted such that the nitrogen and sulfur content values for the #2 fuel oil shall be determined either by sampling on a semi-annual frequency or determined by sampling after each occasion that fuel is transferred to the storage tank from any other source. The latter requirement requires that after each addition of #2 fuel oil to the storage tank, sampling for nitrogen and sulfur content must be performed.

(b) Compliance shall be determined utilizing the following option when combusting natural gas:

Pursuant to 40 CFR 60.334, Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in the turbine. Pursuant to 40 CFR 60.334 (b)(2), the custom monitoring schedule procedures approved by EPA on April 05, 2001 shall be accepted. Monitoring of these values shall be conducted as follows:

(1) the nitrogen content monitoring requirements pursuant to 40 CFR 60.334 (b) for the natural gas being fired in the gas turbines are waived since there is no fuel-bound nitrogen in pipeline quality natural gas.

(2) the sulfur content values for the natural gas shall be monitored on a semi-annual frequency. The sulfur content of the natural gas being fired in the gas turbines shall be determined by the ASTM methods D 1072-80, D 3031-81, D 4084-82, or D 3246-81. The applicable ranges of some ASTM methods mentioned are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the Approval of the Administrator.

(c) Visible emission notations of the turbines' (T1, T2, and T3) stack exhaust shall be performed once per shift during normal daylight operations when combusting #2 fuel oil. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because to ensure compliance with 326 IAC 12 and 40 CFR Part 60 Subpart GG.

Proposed Changes

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) 38.7 megawatt (net) simple cycle gas turbines using natural gas as the primary fuel with No. 2 fuel oil used as a backup identified as T1 and T2, and using a water injection system as control, with each turbine exhausting to stacks, identified as S/V 3 and S/V 4, respectively.

(b) One (1) 84 megawatt (MW) simple cycle gas turbine, using natural gas as the primary fuel and #2 fuel oil as backup fuel, identified as T3, using water injection for NOx control when fuel oil is used, and exhausting to stack S/V 7. When using natural gas, T3 has a maximum heat input capacity of 858 MMBtu/hr. When using #2 fuel oil, T3 has a maximum heat input capacity of 850 MMBtu/hr.

(c) Two (2) 630 horsepower diesel engines used for turbine start-up, identified as D7 and D8, each exhausting at stacks, identified as S/V 5 and S/V 6, respectively.

(d) Two (2) 300,000 gallon No. 2 fuel oil storage tanks, identified as FT10 and FT11.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Two (2) 38.7 megawatt (net) simple cycle gas turbines using natural gas as the primary fuel with No. 2 fuel oil used as a backup identified as T1 and T2, and using a water injection system as control, with each turbine exhausting to stacks, identified as S/V 3 and S/V 4, respectively.

(b) One (1) 84 megawatt (MW) simple cycle gas turbine, using natural gas as the primary fuel and #2 fuel oil as backup fuel, identified as T-3, using water injection for NOx control when fuel oil is used, and exhausting to stack S/V 7. When using natural gas, T-3 has a maximum heat input capacity of 858 MMBtu/hr. When using #2 fuel oil, T-3 has a maximum heat input capacity of 850 MMBtu/hr;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Fuel Usage Limitation - Prevention of Significant Deterioration [326 IAC 2-2][40 CFR 52.21]

The total amount of natural gas equivalents consumed by turbines T1, T2, and T3 shall be limited to 8,025 million cubic feet of gas (MMCF) per twelve consecutive month period with compliance determined at the end of each month.

(a) For every one million cubic feet of gas (MMCF) consumed by turbine T3, the natural gas equivalent limit shall be reduced by one million cubic feet (MMCF).

(b) For every one million cubic feet of gas (MMCF) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 2.132 million cubic feet.

(c) For every one thousand gallons of fuel oil (kgal) consumed by turbine T3, the natural gas equivalent limit shall be reduced by 0.391 million cubic feet.

(d) For every one thousand gallons of fuel oil (kgal) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 0.533 million cubic feet.

This limit, in conjunction with the fuel limit on diesel engines D7 and D8 has been incorporated to limit the potential to emit nitrogen oxidizes (NO_x) and carbon monoxide (CO) to less than 250 tons per twelve consecutive month period.

Compliance with this limit will render the requirements of 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration) not applicable.

~~D.1.1 Fuel Usage Limitations~~

~~The total combined fuel use in turbines T1 and T2 shall be limited as follows:~~

~~(a) When natural gas is the only fuel used, the fuel limit is 675.0 million standard cubic feet (MMSCF) per 365 day rolling total.~~

~~(b) When No. 2 fuel oil is the only fuel used, the fuel limit is 3.36 million gallons per 365 day rolling total.~~

~~(c) Fuel limit when both natural gas and No. 2 fuel oil are used during the 365 day period: 75.0 million standard cubic feet (MMCF) natural gas and 3.36 million gallons (MMgal) of No. 2 fuel oil per 365 day rolling total.~~

~~These limits restrict the potential to emit of sulfur dioxide (SO2), particulate matter (PM), particulate matter less than ten (10) microns (PM10), nitrogen oxides (NOx) and carbon monoxide (CO) to less than 100 tons per year. Thus, 326 IAC 2-2 does not apply.~~

D.1.4 NOx Emissions Limitations

(a) Pursuant to CP-048-1841, issued May 11, 1990, the nitrogen oxide (NO_x) emissions from ~~two (2) simple cycle gas~~ turbines ~~(~~T1 and T2~~)~~ shall be limited to 42 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting natural gas and 65 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting fuel oil. [These limits are more stringent than the NSPS standards contained in 326 IAC 12 and 40 CFR 60.332 (a)(1) and (b)].

(b) In order to ensure compliance with 40 CFR 60.332, the nitrogen oxide (NO_x) emissions from turbine T3 shall be limited to 42 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting natural gas and 65 parts per million dry volume (ppmdv) at 15 percent oxygen when combusting fuel oil. [These limits are more stringent than the NSPS standards contained in 326 IAC 12 and 40 CFR 60.332 (a)(1) and (b)].

D.1.5 Sulfur Dioxide [326 IAC 2-7-24] [40 CFR 60.333(b)] [326 IAC 7-1.1]

(a) Pursuant to Construction Permit 048-1841, issued on May 11, 1990, the sulfur content of any fuel ~~used in the turbines~~ (natural gas or oil) **used in turbines T1 and T2** shall be limited to 0.3% sulfur by weight. Pursuant to 326 IAC 2-7-24, compliance with this limitation shall satisfy the requirements of 40 CFR 60.333(b) and 326 IAC 7-1.1.

(b) In order to ensure compliance with 40 CFR 60.333, the sulfur content of any fuel (natural gas or oil) used in turbine T3 shall be limited to 0.3% sulfur by weight. Pursuant to 326 IAC 2-7-24, compliance with this limitation shall satisfy the requirements of 40 CFR 60.333(b) and 326 IAC 7-1.1.

D.1.6 Opacity

(a) Pursuant to Construction Permit 048-1841, issued on May 11, 1990, **and in order to ensure compliance with 326 IAC 5-1,** visible emissions from the combustion turbine stacks, S/V 3 and S/V 4, shall be limited to twenty percent (20%) opacity.

(b) In order to ensure compliance with 326 IAC 5-1, visible emissions from combustion turbine stack S/V 7 shall be limited to twenty percent (20%) opacity.

D.1.7 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for **these facilities** ~~this facility~~ and any control device**s**.

D.1.8 NSPS Compliance Provisions [40 CFR Part 60, Subpart GG]

(a) Pursuant to 40 CFR 60, Subpart GG and the custom monitoring schedule procedures approved by EPA on April 05, 2001, when combusting natural gas, the turbine**s** shall comply with the sulfur dioxide emissions standard by using pipeline supplied natural gas.

(b) No alternate fuel burned in the gas turbine**s** shall contain sulfur in excess of 0.8 percent by weight.

D.1.9 Compliance Requirements (Stationary Gas Turbines) [40 CFR Part 60, Subpart GG]

Pursuant to 40 CFR Part 60, Subpart GG (Stationary Gas Turbines), the Permittee shall monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine**s** as follows:

(a) Install a continuous monitoring system to monitor the fuel consumption and the ratio of water to fuel being fired in the turbine**s**, as required by 40 CFR 60.334(a).

D.1.10 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR Part 60, Subpart GG]

Compliance shall be determined utilizing the following option when combusting fuel oil:

Pursuant to 40 CFR 60.334, Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in ~~the~~ **each** turbine. Pursuant to 40 CFR 60.334 (b)(2), the custom monitoring schedule procedures approved by EPA on April 05, 2001 shall be accepted. Monitoring of these values shall be conducted as follows:

(a) the nitrogen and sulfur content values for the #2 fuel oil shall be determined either by sampling on a semi-annual frequency or determined by sampling after each occasion that fuel is transferred to the storage tank from any other source. The latter requirement requires that after each addition of #2 fuel oil to the storage tank, sampling for nitrogen and sulfur content must be performed.

The sulfur and nitrogen content information obtained from this monitoring shall be used to document compliance with the limits stated in Conditions D.1.1, D.1.3, D.1.4, and D.1.5.

D.1.11 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR Part 60, Subpart GG]

Compliance shall be determined utilizing the following option when combusting natural gas:

Pursuant to 40 CFR 60.334, Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in the turbine**s**. Pursuant to 40 CFR 60.334 (b)(2), the custom monitoring schedule procedures approved by EPA on April 05, 2001 shall be accepted. Monitoring of these values shall be conducted as follows:

D.1.12 Visible Emissions Notations

(a) Visible emission notations of turbines T1**,** ~~and~~ T2**, and T3** stack exhausts shall be performed once per shift during normal daylight operations when combusting #2 fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.13 Record Keeping Requirements

(a) To document compliance with Conditions ~~D.1.1, D.1.3, D.1.4,~~ D.1.5, ~~D.1.6, D.1.7, D.1.9,~~ D.1.10, and D.1.11, the Permittee shall maintain records **of the sulfur content monitoring data.** ~~in accordance with (1) through (2) below.~~ Records **shall be taken pursuant to 40 CFR 60.334.** ~~maintained for (2) shall be taken according to Conditions D.1.10 and D.1.11 and shall be complete and sufficient to establish compliance with the sulfur and nitrogen content limits established in Conditions D.1.1, D.1.3, D.1.4, and D.1.5.~~

~~(1) Data and results from the most recent stack test; and (2) All fuel nitrogen content and sulfur content monitoring data.~~

~~(2) All fuel nitrogen content and sulfur content monitoring data.~~

(c) To document compliance with Condition D.1.9, the Permittee shall maintain records of fuel consumption and the ratio of water to fuel being fired in the turbine~~s~~.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Fuel Usage Limitations

The Permittee requests and accepts diesel fuel usage limits for diesel engines D7 and D8. The total diesel fuel usage for diesel engines D7 and D8 shall be limited to ~~1,099~~ **2,200** gallons per ~~365 day rolling total~~ **twelve consecutive month period with compliance determined at the end of each month**. This is equivalent to 0.24 tons per year of NOx emissions.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and the
Anderson Office of Air Management

Part 70 Monthly Report

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46001
Mailing Address: 11610 North College Avenue, Carmel, Indiana 46032
Part 70 Permit No.: T095-12389-00051
Facility: Gas Turbines (T1 and T2)
Parameter: Fuel Usage
Limit: The total combined fuel use in gas turbines T1 and T2 shall be limited as follows:
(1) When natural gas is the only fuel used, the fuel limit is 675.0 million standard cubic feet (MMSCF) per 365 day rolling total.

(2) When No. 2 fuel oil is the only fuel used, the fuel limit is 3.36 million gallons per 365 day rolling total.

(3) Fuel limit when both natural gas and No. 2 fuel oil are used during the 365 day period: 675.0 million standard cubic feet (MMCF) natural gas and 3.36 million gallons (MMgal) of No. 2 fuel oil per 365 day rolling total.

Month: _____ **Year:** _____

Day	Fuel Type a) Nat. Gas b) #2 Fuel oil	Fuel usage a) (CF/day) b) (Gal/day)	Usage for previous 365 day period	Water to fuel ratio	Sulfur content	Day	Fuel Type a) Nat. Gas b) #2 Fuel oil	Fuel usage a) (CF/day) b) (Gal/day)	Usage for previous 365 day period	Water to fuel ratio	Sulfur content
1						17					
2						18					
3						19					
4						20					
5						21					
6						22					
7						23					
8						24					
9						25					
10						26					
11						27					
12						28					
13						29					
14						30					
15						31					
16											

9 No deviation occurred in this month.
9 Deviation/s occurred in this month.
Deviation has been reported on: _____
Submitted by: _____
Title/Position: _____
Signature: _____

Date: _____

~~Attach a signed certification to complete this report.~~

Indiana Department of Environmental Management
Office of Air Management
Compliance Data Section

Quarterly Report

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46011
Mailing Address: 11610 N. College Avenue, Carmel, IN 46032
Part 70 Permit No.: T095-12389-00051
Facility: Turbines T1, T2, and T3
Pollutant: NO_x, CO
Parameter: Less than 1,526 MMCF natural gas per twelve (12) consecutive month period
For every one (1) thousand gallons (kgal) of fuel oil consumed by the turbines, the natural gas usage limit shall be reduced by 0.101 million cubic feet.

Parameter: Less than 8,025 MMCF natural gas equivalents per twelve (12) consecutive month period
For every one million cubic feet of gas (MMCF) consumed by turbine T3, the natural gas equivalent limit shall be reduced by one million cubic feet (MMCF).
For every one million cubic feet of gas (MMCF) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 2.132 million cubic feet.
For every one thousand gallons of fuel oil (kgal) consumed by turbine T3, the natural gas equivalent limit shall be reduced by 0.391 million cubic feet.
For every one thousand gallons of fuel oil (kgal) consumed by turbines T1 or T2, the natural gas equivalent limit shall be reduced by 0.533 million cubic feet.

Year: _____

	Natural Gas Usage This Month (MMCF)			Fuel Oil Usage This Month (kgal)			Natural Gas Usage for Past 11 Months (MMCF)			Fuel Oil Usage for Past 11 Months (kgal)			Total Natural Gas equivalents used for the past 12 Month Period (MMCF)
Month	T1	T2	T3	T1	T2	T3	T1	T2	T3	T1	T2	T3	

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality
Compliance Data Section
and the
Anderson Office of Air Management

Quarterly Report

Source Name: Indiana Municipal Power Agency
Source Address: 6035 Park Road, Anderson, Indiana 46011
Mailing Address: 11610 N. College Avenue, Carmel, IN 46032
Part 70 Permit No.: T095-12389-00051
Facility: Diesel Engines D7 and D8
Pollutant: NO_x, CO
Parameter: Less than 2,200 gal fuel oil per twelve (12) consecutive month period

Year: _____

Month	Fuel Oil Usage This Month (kgal)	Fuel Oil Usage for Past 11 Months (kgal)	Fuel Oil Usage for Previous 12 Month Period (kgal)

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 095-15883-0005, and the operation of the equipment shall be subject to the attached Significant Permit Modification No. 095-16149-00051.

Appendix A: Potential to Emit (PTE) Calculations
Three (3) Simple Cycle Turbines for Electricity Generation

Source Name: Indiana Municipal Power Agency
Source Location: 6030 Park Road, Anderson, Indiana 46011
Source Modification # : 095-15883-00051
Permit Modification # : 095-16149-00051
Permit Reviewer: ERG/BS
Date: 21-May-02

I. Facility Description

A. One (1) simple cycle gas turbine using natural gas as the primary fuel and No. 2 fuel oil as a back-up fuel (unit T3)
Base load capacity: ~ 84,000 kW with a heat input capacity of 858 MMBtu/hr when fired by natural gas and 850 MMBtu/hr when fired by No. 2 fuel oil.

B. Two (2) simple cycle gas turbine using natural gas as the primary fuel and No. 2 fuel oil as a back-up fuel (units T1 and T2)
Base load capacity (each): ~38,000 kW with a heat input capacity of 431.2 MMBtu/hr when fired by natural gas and 424.5 MMBtu/hr when fired by No. 2 fuel oil.

Emission controls: Water injection for NOx control
Stack ID's: S/V 3,4, and 7

II. Potential Emissions from turbines T1, T2, and T3

Turbine T1

Heat input (MMBtu/hr) for Natural gas = 431.2 S % sulfur content of natural gas = 0.00008
Heat input (MMBtu/hr) for No. 2 fuel oil = 424.5 S % sulfur content of fuel oil = 0.3

Pollutant	Natural Gas			Distillate (No. 2) Fuel Oil		
	EF	Potential Emissions		EF	Potential Emissions	
	(lb/MMBtu)	lbs/hr	tons/yr	(lb/MMBtu)	lbs/hr	tons/yr
PM	0.0066	2.85	12.47	0.012	5.09	22.31
PM-10	0.0066	2.85	12.47	0.012	5.09	22.31
SO2	0.0000752	0.03	0.14	0.303	128.62	563.37
NOx+	0.146	62.96	275.74	0.212	89.99	394.17
VOC	0.0021	0.91	3.97	0.0004	0.17	0.74
CO	0.03	12.94	56.66	0.076	32.26	141.31

Emission Factors (not Nox) are from AP-42, Fifth Ed., Chapter 3.1, Tables 3.1-1&2
+ Nox EF is the worst case EF from test results completed pursuant to 40 CFR 75 Appendix E.

Turbine T2

Heat input (MMBtu/hr) for Natural gas = 431.2 S % sulfur content of natural gas = 0.00008
Heat input (MMBtu/hr) for No. 2 fuel oil = 424.5 S % sulfur content of fuel oil = 0.3

Pollutant	Natural Gas			Distillate (No. 2) Fuel Oil		
	EF	Potential Emissions		EF	Potential Emissions	
	(lb/MMBtu)	lbs/hr	tons/yr	(lb/MMBtu)	lbs/hr	tons/yr
PM	0.0066	2.85	12.47	0.012	5.09	22.31
PM-10	0.0066	2.85	12.47	0.012	5.09	22.31
SO2	0.0000752	0.03	0.14	0.303	128.62	563.37
NOx+	0.155	66.84	292.74	0.206	87.45	383.02
VOC	0.0021	0.91	3.97	0.0004	0.17	0.74
CO	0.03	12.94	56.66	0.076	32.26	141.31

Emission Factors (not Nox) are from AP-42, Fifth Ed., Chapter 3.1, Tables 3.1-1&2
+ Nox EF is the worst case EF from test results completed pursuant to 40 CFR 75 Appendix E.

Turbine T3

Heat input (MMBtu/hr) for Natural gas = 858 S % sulfur content of natural gas = 0.00008
Heat input (MMBtu/hr) for No. 2 fuel oil = 850 S % sulfur content of fuel oil = 0.3

Pollutant	Natural Gas			Distillate (No. 2) Fuel Oil		
	EF	Potential Emissions		EF	Potential Emissions	
	(lb/MMBtu)	lbs/hr	tons/yr	(lb/MMBtu)	lbs/hr	tons/yr
PM*	0.00565	4.85	21.23	0.0124	10.54	46.17
PM-10*	0.00565	4.85	21.23	0.0124	10.54	46.17
SO2	0.0000752	0.06	0.28	0.303	257.55	1128.07
NOx*	0.0373	32.00	140.17	0.1758	149.43	654.50
VOC*	0.002	1.72	7.52	0.00495	4.21	18.43
CO*	0.061	52.34	229.24	0.0471	40.04	175.35

* Emission Factors are from manufacturer performance specifications. The emission factor for SO2 is from AP-42, Fifth Ed. Chapter 3.1.

Methodology
1 cubic foot of natural gas has a heating value of 1,020 Btu
1 gallon of No. 2 Fuel Oil has a heating value of 138,123 Btu
Emissions (ton/yr) = Heat Input Capacity (MMBtu/hr) x Emission factor (lb/MMBtu) x 8,760 hrs/yr / 2000 lbs/ton

III. Limited Emissions from turbines T1, T2, and T3

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the source has agreed to limit the total natural gas equivalent usage to the three (3) turbines (T-1, T-2, and T-3). Because of the variable emission factors associated with the turbines and the specific fuel they consume, the natural gas equivalent limit will be adjusted accordingly- see below for calculations.

The following calculations are based on the emissions from the new turbine, T3.
Limited natural gas equivalent usage (MMCF/yr) = 8003

Pollutant	Natural Gas	
	EF	Limited Emissions
	(lb/MMBtu)	tons/yr
PM	0.00565	23.06
PM-10	0.00565	23.06
SO2	0.0000752	0.31
NOx	0.0373	152.24
VOC	0.002	8.16
CO	0.061	248.97

Determination of equivalence factor for T1 when combusting natural gas:
CO is the worst case pollutant from the turbine T3 when combusting gas and the basis of the fuel limit.
NOx is the worst case pollutant from turbine T1 when combusting gas.
Therefore, the appropriate equivalency factor for T1 is:
0.146 lb NOx/MMBtu (T1) x 1/0.061 (1/lb CO MMBtu (T3)) = 2.40

Determination of equivalence factor for T1 and T2 and T3 when combusting fuel oil:
CO is the worst case pollutant from the turbine T3 when combusting gas and the basis of the fuel limit.
SO2 is the worst case pollutant from turbines T1, T2, or T3 when combusting oil.
For the combustion of oil: 0.303 (lb SO2/MMBtu) x 138,123 Btu/gal x 1/1,000,000 (MMBtu/Btu) x 1000 (gal/kgal) =
= 41.851 lb SO2/kgal fuel oil
For the combustion of gas: 0.061 (lb CO/MMBtu) x 1,020 Btu/CFgas x 1/1,000,000 (MMBtu/Btu) x 1,000,000 (CFgas/MMCFgas) =
= 62.22 lb CO/MMCF gas

The ratio of emissions potential of 1 kgal oil to 1 MMCF gas: 41.851 lb SO2/kgal x 1/62.22 MMCF gas/lb CO = 0.6726
Therefore, 1 kgal oil combusted in turbine T1, T2, or T3 is equivalent to 0.68 MMCF of gas in terms of pollutant emissions

Determination of equivalence factor for T2 when combusting natural gas:
CO is the worst case pollutant from the turbine T3 when combusting gas and the basis of the fuel limit.
NOx is the worst case pollutant from turbine T2 when combusting gas.
Therefore, the appropriate equivalency factor for T2 is:
0.155 lb NOx/MMBtu (T1/T2) x 1/0.061 (1/lb CO MMBtu (T3)) = 2.55

Appendix A: HAP Calculations
Three (3) Simple Cycle Turbines for Electricity Generation

Source Name: **Indiana Municipal Power Agency**
Source Location: **6030 Park Road, Anderson, Indiana 46011**
Source Modification # : **095-15883-00051**
Permit Modification # : **095-16149-00051**
Permit Reviewer: **ERG/BS**
Date: **21-May-02**

I. Facility Description

A. One (1) simple cycle gas turbine using natural gas as the primary fuel and No. 2 fuel oil as a back-up fuel (unit T3)
Base load capacity: ~ 84,000 kW with a heat input capacity of 858 MMBtu/hr when fired by natural gas and 850 MMBtu/hr when fired by No. 2 fuel oil.

B. Two (2) simple cycle gas turbine using natural gas as the primary fuel and No. 2 fuel oil as a back-up fuel (units T1 and T2)
Base load capacity (each): ~38,000 kW with a heat input capacity of 431.2 MMBtu/hr when fired by natural gas and 424.5 MMBtu/hr when fired by No. 2 fuel oil.

Emission controls: Water injection for NOx control
Stack ID's: S/V 3,4, and 7

II. Potential Emissions from turbines T1, T2, and T3

Heat input (MMBtu/hr) for Natural gas = 1720.4
Heat input (MMBtu/hr) for No. 2 fuel oil = 1699

Pollutant	Natural Gas			Distillate (No. 2) Fuel Oil		
	EF	Potential Emissions		EF	Potential Emissions	
	(lb/MMBtu)	lbs/hr	tons/yr	(lb/MMBtu)	lbs/hr	tons/yr
1,3 Butadiene	4.30E-07	0.0007	0.003	1.60E-05	0.0272	0.119
Acetaldehyde	4.00E-05	0.0688	0.301	ND	NA	NA
Acrolein	6.40E-06	0.0110	0.048	ND	NA	NA
Benzene	1.20E-05	0.0206	0.090	5.50E-05	0.0934	0.409
Ethylbenzene	3.20E-05	0.0551	0.241	ND	NA	NA
Formaldehyde	7.10E-04	1.2215	5.350	2.80E-04	0.4757	2.084
Naphthalene	1.30E-06	0.0022	0.010	3.50E-05	0.0595	0.260
PAH	2.20E-06	0.0038	0.017	4.00E-05	0.0680	0.298
Propylene Oxide	2.90E-05	0.0499	0.219	ND	NA	NA
Toluene	1.30E-04	0.2237	0.980	ND	NA	NA
Xylene	6.40E-05	0.1101	0.482	ND	NA	NA
Nickel	ND	NA	NA	4.60E-06	0.0078	0.034
Manganese	ND	NA	NA	3.40E-04	0.5777	2.530
Phosphorus	ND	NA	NA	3.00E-04	0.5097	2.232
Lead	ND	NA	NA	5.80E-05	0.0985	0.432
Chromium	ND	NA	NA	4.70E-05	0.0799	0.350
Antimony	ND	NA	NA	2.20E-05	0.0374	0.164
Arsenic	ND	NA	NA	4.90E-06	0.0083	0.036
		TOTAL	7.741		TOTAL	8.949

ND - No Data available
NA - Not Applicable

Methodology
Emission Factors are from AP 42, Fifth Ed., Chapter 3.1, Tables 3.1-1&2
Emissions (ton/yr) = Heat Input Capacity (MMBtu/hr) x Emission factor (lb/MMBtu) x 8,760 hrs/yr / 2000 lbs/ton

Appendix A: Emissions Calculations
Two (2) Diesel Engines used for turbine start-up

Source Name: **Indiana Municipal Power Agency**
Source Location: **6035 Park Road, Anderson, IN 46011**
Source Modification # : **095-15883-00051**
Permit Modification # : **095-16149-00051**
Reviewer: **ERG/BS**
Date: **21-May-02**

Potential Aggregate Power Output* (hp)	Potential Output (hp-hr/yr)	Fuel Limit (kgal/yr)	Limited Output (hp-hr/yr)
1260.0	11037600	2.2	43410.0857

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.47E-03	6.68E-03
Potential Emissions in tons/yr	12.14	12.14	11.31	171.08	13.63	36.87
Limited Emission in tons/yr	0.05	0.05	0.04	0.67	0.05	0.14

* Two diesel start-up engines

Methodology
hp-hr/yr = hp * 8760 hr/yr
Pursuant to T095-12389-00051, the source requested that 138,123 Btu/gal be used for emission calculations
Limted Output (hp-hr/yr) = fuel limit (kgal/yr) x 138,123 (Btu/gal) x 1000 (gal/kgal) x 1/7000 (hp-hr/Btu)
Emission Factors are from AP 42, Chapter 3.3
Emission (tons/yr) = (hp-hr/yr) x Emission Factor (lb/hp-hr)/2,000 lb/ton

Appendix A: Emissions Calculations
One(1) natural gas fired heater

Source Name: **Indiana Municipal Power Agency**
Source Location: **6035 Park Road, Anderson, IN 46011**
Source Modification # : **095-15883-00051**
Permit Modification # : **095-16149-00051**
Reviewer: **ERG/BS**
Date: **19-Sep-02**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.0	17.5

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.07	0.07	0.01	0.88	0.05	0.74

Note that HAP emissions from this source are negligible.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton